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BORIS T. PASH

BOX NO. 2

ACCESSION NO. 72033-8.19

2-4 Boris Pash

[redacted]

Alsos Mission

General

General

1945

Money

~~12~~ Dec.

		Money converted	Expenditu	Balanc
17 Dec	Converted at Finan M. 16000	¥6000		
18 Dec	Driver at Toronto		65-	
	Lunch with Zarolli + white		1445-	
	Reimb. Johnson, drinks with Bergen		300-	
19 Dec.	Dinner with Mollinari		760-	
	Drinks with Mollinary + party		2020-	
	Reimb Fisk for drinks		1020-	
	Reimb. Allis for drinks		345-	
20 Dec	Lunch with Dr. Fano		455 5910	— 90.00
21 Dec.	Converted (Toronto) Lira	#30—	920 -	3090.00 920
	Reimb. Allis (Toronto) (lunch) Gen materini		920 -	2170 420
	" Johnson "		420	1750 350
	" Fisk "		310	1440 400
	" " meal ticket (for ent)		400	1040 220
22 Dec.	" Fisk (Prof. Tiberia ent)		220	820 90
	Dinner wine ONI men		1.90	730
	Lunch wine Cmdr. Lovatelli (St. Evasion Off)		2.90	640
23 Dec.	Lunch f Gen. Materini (mil. wine)		470	170
	Cigarette + matches (service items)		240	50
	Converted to lira	#20		2050 -
25	Pd Standard f cognac f Clipad		1000	1050
	Allis f cigarette		40	1010
	Old "		50	960
26 Dec	Informant contact dinner + drinks		650	310
27	Tip to Hotel porter + maid (for special service	#30	450	160 3160
	Treating contacts in It. Off circles, Naples		1750	2410
1 Jan.	Reimb. Maj. Allis Exp. in treating Correlli	#10	1600	1810
	" Br. Fisk " " " " It. Sc. in Naples		900	910
2 Dec	Phone to SF		#4.90	

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8 — 16

DEPARTED	DATE	ARRIVED	DATE
Paris	Nov. 24, 1944	Strasbourg	Nov. 25, 1944
Strasbourg	Dec. 2, 1944	Paris	Dec. 2, 1944
Paris	Dec. 27, 1944	Strasbourg	Dec. 28, 1944
Strasbourg	Dec. 29, 1944	Paris	Dec. 30, 1944
Paris	Jan. 23, 1945	Luneville	Jan. 23, 1945
Luneville	Jan. 25, 1945	Paris	Jan. 25, 1945
Paris	Jan. 30, 1945	Luneville	Jan. 30, 1945
Luneville	Feb. 1, 1945	Paris	Feb. 1, 1945
Paris	Feb. 7, 1945	Maastricht	Feb. 7, 1945
Maastricht	Feb. 9, 1945	Paris	Feb. 9, 1945
Paris			

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WAR DEPARTMENT
Military Intelligence Service
Washington, D.C.
January 31, 1945

TO: Major Frank Smith

FROM: S. A. Goudsmit

SUBJECT: T.A. Status in Germany
Reference T.A.-Report of 17 December 1944.

The following statements are based almost exclusively on documentary evidence found at Strasbourg.

1. There is positive evidence that T.A. is under development in Germany. The effort is not on a large scale, only a comparatively small group of physicists is engaged in this work. Some high grade physicists connected with it spent only a small portion of their time on the project at least up until the summer of 1944. The effort was originally uncoordinated but was combined under a single director, responsible to Göring, at the beginning of 1943. This coordinated effort includes not only T.A. but also applications of nuclear physics to biology, to metallurgy, etc. Evidence indicates that at least in the early stages (late 1942) these applications were considered of more immediate importance to the German war effort than the T.A. problem. The present German effort is merely in an experimental stage as is indicated by the type of computations engaged in by the key theorists as late as August 1944. A greater emphasis seems to be placed on technical than on theoretical problems, however. There are also indications that energy production rather than an explosive is the principal German goal, though the latter has not been overlooked. Hitler has been informed of the T.A. possibilities as far back as 1942, his reaction is unknown.

2. There appear to be three centers of activity on the T.A. problem in Germany.

a. The theoretical effort is controlled by the theorists of the Kaiser Wilhelm Institute for Physics, originally in Berlin. The theorists, under Heisenberg, are now at Hechingen in Southern Germany. The principal experiments are probably performed by the experimental physicists of the KWI at Berlin-Dahlem and at Gottow, south of Berlin. Research is also pursued at the Physics Laboratory of the K.W.I. for Medical Research at Heidelberg, under Bothe.

b. The industrial effort, namely the large scale production of metal, is performed by the Deutsche Gold und Silber Scheideanstalt (Degussa) and controlled by the experts of its subsidiary; the Auer Gesellschaft at Oranienburg, north of Berlin.

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By CD/SC NARS, Date 25 FEB 1976

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c. The research department of the German Post Office (Reichspost) independently originated intensive research on the T.A. problem in 1942. This was instigated by Minister Ohnesorge of the Post. Telephone and Telegraph Department, who himself presented the problem to Hitler's panel. Their personnel is not considered very competent. Their research laboratory is at Miersdorf near Zeuthen, southeast of Berlin.

Besides these centers there are some other places where work is done connected closely or remotely with the T.A. problem, in addition to nuclear physics not related to T.A. The principal places are:

a. Freiburg in Baden, where Harteck and Groth, formerly at Hamburg, work on isotope separation by centrifuge methods.

b. The K.W.I. in Heidelberg, mentioned above the director of the Physics Laboratory, W. Bothe must have a complete detailed picture of the total effort.

c. Von Ardenne in Berlin, a private experimenter who cooperates with the effort of the Reichspost.

d. The Institute of Nuclear Measurements, formerly a section of the Physikalisch Technische Reichsantalt, Director Kurt Philipp, now at Posthalde in the Black Forest.

e. The nuclear research section of the Physikalisch Technische Reichsanstalt (Bureau of Standards) originally in Berlin, evacuated to Ronneburg, (Thüringen). The key man there was Houtermans, who is now probably somewhere in Austria.

3. Sources of Evidence

The above given conclusions are derived from two sources:

a. Files of correspondence of Von Weizsa'cker at Strasbourg. This material was not classified but is nevertheless very revealing to those thoroughly familiar with German research in physics.

b. Files of correspondence of Fleischmann at Strasbourg. Also very revealing informal notes made by Fleischmann regarding conversations he had with various officials and colleagues.

Since early 1942 Fleischmann attempted to obtain a cyclotron for his laboratory in the Medical School at the University of Strasbourg. His strenuous efforts brought him in contact with most nuclear physicists and with the authorities governing research in this field. Notes and correspondence about the progress of his effort in this direction give a rather complete picture of German nuclear physics for 1942 to the fall of 1944.

S. A. Goudsmit
Scientific Chief
Alsos Mission

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COPY
from
THE NATIONAL ARCHIVES
Record Group No. 77

37.60-2 GERMANY
Summary Reports (1945-1946)

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WAR DEPARTMENT
MILITARY INTELLIGENCE SERVICE
WASHINGTON

SECRET
Courtesy of The
G-2 W.D.G.S.
AFHQ 7 Feb 1945

MID 915

5 February 1945

SUBJECT: Operation and Administration - ALSOS Mission

TO : Lt. Colonel B. T. Pash, Chief, ALSOS Mission, c/o G-2 Section, Hq. ETOUSA, APO 887, U S ARMY, c/o Postmaster, New York, N.Y.

1. The MIS ALSOS Advisory Committee met on 16 December 1944 to review the past operations of the Mission in Europe. All member agencies agreed at that time that the operating procedures as originally established in the Memorandum for the Chief of Staff dated 11 May 1944 were basically sound and need not be revised, but that additional instructions expanding and reaffirming these principles should be prepared to serve as a guide for future operations.

2. The Office of Scientific Research and Development will soon appoint a Deputy Scientific Chief to facilitate coordination of scientific matters and to act for the Scientific Chief in his absence. In this respect, the designation of Lt. Colonel G. R. Eckman as Deputy Mission Chief is approved. It should be emphasized, however, that it is the responsibility of the Mission Chief to see that an adequate number of competent personnel are present at Mission Headquarters at all times to provide effective administrative control of the Mission.

3. The attached outline entitled "Operating Principles - ALSOS Mission" has been prepared and approved by all participating agencies to serve as a guide in the conduct of future operations of the Mission, and it is desired that the administration of the Mission conform to these principles wherever possible.

RECEIVED
13 FEB 1945
ALSOS
MISSION

R. A. OSMUN
Brigadier General
Chief, Military Intelligence Service

2 Incls:
1. Directive
2. Sample Form

DECLASSIFIED
Authority NND 750122

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2-4 Box 3 Pash
ALSOS MISSION
General
General

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OPERATING PRINCIPLES - ALSOS MISSION

I. DISCUSSION

A. This outline has been prepared to serve as a guide for future operations of the ALSOS Mission in the European Theater. It is intended to expand and reaffirm the basic operating procedures contained in the Memorandum for the Chief of Staff dated 11 May 1944, subject: "Mission Organized in MID for the Collection of Scientific Intelligence". This outline has been approved by all member agencies (Navy, ASF and OSRD).

II. ORGANIZATION

A. The Mission will be headed by a military and administrative chief assisted by a scientific chief and will consist of two (2) groups:

1. Military and administrative group consisting of the Chief of Mission; a Deputy to the Chief of Mission; and such other military administrative personnel as may be authorized by the War Department as being necessary to the successful operations of the Mission.

2. A scientific group consisting of the Scientific Chief; a Deputy to the Scientific Chief, and such additional military and civilian scientists as are attached to the Mission, with G-2 concurrence, by the Director, OSRD, the Army Service Forces, the Army Air Forces, the Army Ground Forces, and the Director of Naval Intelligence. It is contemplated that the Scientific Chief and his Deputy will serve continuously with the Mission. Every other scientist is to be attached for a specific duration and purpose (either for general duty in a theater or for more specific assignment). The attachment of scientists may be proposed by the Scientific Chief or by OSRD, the War Department, or the Navy Department.

3. ASF and Navy representation on the Mission will, whenever possible, be effected by coordination and liaison with the ASF Technical Intelligence Liaison Office and with the U.S. Navy Technical Intelligence Mission respectively. Technical personnel for attachment to ALSOS are now available with these agencies in Paris, France. Attachment of Army Air Forces and Army Ground Forces personnel will be arranged in Washington, and when necessary the same procedure will be followed with respect to Army Service Forces and Navy personnel.

III. RESPONSIBILITY

A. In addition to the responsibilities outlined in the basic Memorandum of 11 May 1944, it will be the responsibility of the Chief of Mission or his Deputy to carry out the following functions:

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BY NARS, Date

2-4 Bonn Pash
ALSOS Mission General General

1. Insure that Mission Headquarters is staffed at all times by an adequate number of competent military administrative personnel.

2. Insure that scientific personnel attached to the Mission are provided with the necessary theater credentials and transportation to carry out their assignments. Procurement of these facilities is to be subject to the military situation and general overall operational plans as determined by the Mission Chief, with the advice of the Scientific Chief.

3. Arrange that each scientific member is indoctrinated concerning theater regulations relative to the movement of civilian personnel, and that such personnel are fully informed as to matters of military etiquette, uniform, etc.

4. Maintain close liaison with G-2, SHAEF, and G-2, ETO, and render them such assistance as is within the capabilities of the Mission.

B. In addition to the responsibilities outlined in the basic Memorandum of 11 May 1944, it will be the responsibility of the Scientific Chief or his Deputy to perform the following functions:

1. Determine in conference with the Mission Chief the approximate number of scientists required for future operations, including a detailed description of the qualifications desired.

2. To insure that all agencies participating in ALSOS Mission activities are informed of all Mission targets in order that they may attach representatives to Mission teams if they so desire.

3. To indoctrinate all arriving scientific personnel in the general operations procedure of the Mission, and to make arrangements to fully utilize their services during their tour of duty.

4. To ascertain the intentions and plans of representatives of each of the member agencies, and insure that proper coordination is effected between such plans and the overall objectives of the Mission.

5. Insure that either he or his Deputy is at Mission Headquarters at all times except in event of an emergency requiring their presence in the field.

6. Maintain close liaison with the Scientific Intelligence Advisory Section, G-2, SHAEF, and render such assistance to that section as is within the capabilities of the Mission.

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BY NARS, Date

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IV. DISSEMINATION OF REPORTS

A. The preparation and forwarding of ALSOS Mission reports will conform to the following procedure:

1. All reports prepared by ALSOS representatives will be prepare on the "Standard Intelligence Report Form", a copy of which is attached. The designation, "ALSOS Mission, WD - c/o G-2 Section, Hq. ETOUSA, APO 887," will be placed in the space immediately following the word "From" in the heading of these forms. Sub-designation identifying the ALSOS Representative preparing the report will be placed in the space entitled "Source" and may be indicated as "Lt. John Doe, USN-NAVY" or as "Captain John Doe-ASF".

2. It is expected that all reports prepared by ALSOS Representatives will be forwarded to War Department thru Mission Headquarters, except in those cases where exception is specifically authorized by Military Intelligence Division, W.D., Washington, D. C. However, each representative is authorized to send a copy of his report directly to his home agency provided sufficient copies for standard distribution are concurrently submitted to Mission Headquarters.

3. The security classification of ALSOS reports is the responsibility of the Mission Chief under the provisions of Paragraph 9, AR 380-5. The Mission Chief will secure the advice of the Scientific Chief with regard to security classification of scientific content. The Mission Chief and the Scientific Chief may delegate to their deputies authority to exercise this function in appropriate cases in their absence.

4. Any scientific report prepared by an ALSOS representative subsequent to his return to the United States will be submitted to the War Department, through the Chief, Military Intelligence Service, for clearance and distribution.

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BY NARS, Date

A procedural problem resulting from a misunderstanding on the part of a unit of officer-specialist who with a group of officers from the Manhattan Project were assigned to ALSOS

14 March 1945

this officer and Lieutenants Ditesheim, had been selected for assignment with the departed Washington, D. C., 18 February 1945 , 20 February 1945, contact was made with s activities and his files on targets were s study the group proceeded to Paris on the ALSOS Mission for duty.

m Washington, this officer, on 16 February John Lansdale, Jr., his conversations with sdale outlined the organization of the ts with Colonel Pash as to the functions g established within the mission as a ed and approved at the instance of General ganization was reported to include a TA nction exclusively on the special activities his plan was in accord with the preliminary to the decision to secure approval for ral Groves' office. The personnel selected and cleared for this special activity in Washington was to be the nucleus of the TA section. This was in accord with the agreement between General Groves' office and Colonel Adams, Chief, Foreign Liaison Branch, MIS, under whom the mission operates. Colonel Adams wrote to Colonel Pash advising him of this plan of operation for the section.

3. Upon reporting for duty this officer discussed with Colonel Pash the functions of the section and was advised that no such agreement had been reached. The personnel assigned was not to form a TA section, as such, but was to be fitted into the prior organizational arrangement of the mission and was not to work together on TA matters under a centralized section. Colonel Pash did not consider the letter from Colonel Adams as binding him to compliance and said that in his conversations with Colonel Lansdale he stated that he did not intend to establish a separate group within the mission for activities of interest to MED.

4. This lack of agreement has made it impossible to follow any coordinated plan of action. It created a situation wherein this officer, relying on the information given him in Washington just prior to departure, when acting to insure effective organization as quickly as possible was placed in an untenable position. On the one hand there was the knowledge of how it was desired that the matters of interest to MED be handled and the advice that all the necessary arrangements for so handling them had been made. On the other the statement of

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Authority
By ERC NARS, Date 6-4-74

BY NARS, Date
BY NARS, Date

A-4 Bons Pash
Alsos Mission
General
General

14 March 1945

Memorandum for Major F. J. Smith.

Subject: ALSOS Mission.

1. The group, composed of this officer and Lieutenants Ditesheim, Toepel, Warner and Weimar, which had been selected for assignment with the ALSOS Mission for TA activities departed Washington, D. C., 18 February 1945 for ETO. Upon arrival in London, 20 February 1945, contact was made with Major Calvert for briefing on his activities and his files on targets were studied. Upon completion of this study the group proceeded to Paris on 22 February 1945 and reported to the ALSOS Mission for duty.

2. Prior to departure from Washington, this officer, on 16 February 1945 discussed with Lt. Colonel John Lansdale, Jr., his conversations with Colonel Boris Pash. Colonel Lansdale outlined the organization of the ALSOS Mission and his arrangements with Colonel Pash as to the functions of the TA Section which was being established within the mission as a result of the staff study prepared and approved at the instance of General Groves' office. The plan of organization was reported to include a TA section as a unit which would function exclusively on the special activities for which it was established. This plan was in accord with the preliminary discussions and agreements prior to the decision to secure approval for an increased T/O/E through General Groves' office. The personnel selected and cleared for this special activity in Washington was to be the nucleus of the TA section. This was in accord with the agreement between General Groves' office and Colonel Adams, Chief, Foreign Liaison Branch, MIS, under whom the mission operates. Colonel Adams wrote to Colonel Pash advising him of this plan of operation for the section.

3. Upon reporting for duty this officer discussed with Colonel Pash the functions of the section and was advised that no such agreement had been reached. The personnel assigned was not to form a TA section, as such, but was to be fitted into the prior organizational arrangement of the mission and was not to work together on TA matters under a centralized section. Colonel Pash did not consider the letter from Colonel Adams as binding him to compliance and said that in his conversations with Colonel Lansdale he stated that he did not intend to establish a separate group within the mission for activities of interest to MED.

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2-4 Boris Pash

Colonel Pash that no such agreement had been reached and that he had stated an entirely different policy and was under the impression that his policy had been understood.

5. This officer, of course, had no alternative but to acquiese in Colonel Pash' decisions. In order to attempt to salvage something from the wreckage a definite attempt has been made to keep things on as amicable a basis as possible. This, however, has been a difficult policy to follow inasmuch as TA is by far the most important and most active field for ALSOS and circumspection is required to avoid any hint of trying to dictate or question through suggestion any action that is taken.

6. This was particularly noticeable during the recent trip to Cologne to exploit targets. This officer was not conferred with or advised concerning assignment of either technical personnel assigned by MED or military personnel selected for this duty. Officers assigned for TA have been assigned to other activities for periods of time even though items of interest to MED are pending. Other officers of the mission, not cleared for MED work, have been assigned to TA activities from time to time.

7. The exploitation of targets once they have been secured is left much to chance as there is not a coordinated scheme of exploitation. This necessarily means that each individual works alone and duplication is inevitable. Evaluation of information and documents is equally as uncoordinated. The method of operation prohibits any effective security within the mission and it is the opinion of this officer that scientific and military personnel who have no reason to know anything of TA interests secure some knowledge of them.

8. Under the circumstances, this officer cannot accept the responsibility for matters of interest to MED with which he was charged in Washington. There is, at this time, no reason to believe that the situation will approach what was desired when General Groves' office secured the increases for this one activity.

J. C. Bullock.

J. C. BULLOCK,
Major, CE.

Boris Pash

San Francisco, 16, California

R E S T R I C T E D

HEADQUARTERS
EUROPEAN THEATER OF OPERATIONS
UNITED STATES ARMY

DCG/at
APO 887
14 May 1945

AG 300.4 (13 May 45) E-942

Subject: Orders.

To: COL BORIS T. PASH, 0275706, GSC

1. COL BORIS T. PASH, 0275706, GSC, Hq MI Sv, WD, attached to ALSOS Mission, will proceed by first available air (ETUS-II-21281-WDP) transporation from his present station in this theater to Washington, D.C., reporting upon arrival to The Adjutant General, WD, for temporary duty for a period of approximately fifteen (15) days for the purpose of carrying out instructions of the Theater Commander. Upon completion of this duty, COL PASH will return by first available air (USET-II-10454-WDP-Jun) transportation to his proper station in this theater.

2. COL PASH is authorized a leave of absence within the United States of not to exceed thirty (30) days duration, plus travel time, in returning.

3. Travel will be performed by military or naval aircraft, Army or Naval transport, commercial steamship, belligerent vessel or aircraft and rail. A baggage allowance of 65 lbs is authorized while traveling by air. In lieu of subsistence a per diem of seven dollars ($7.00) is authorized while traveling outside this theater, (except while on a Government operated vessel), and while on this temporary duty, provided that temporary duty does not exceed thirty (30) days at any one station within the continental limits of the United States, in accordance with existing law and regulations. At such times as Government quarters are furnished, deductions from this per diem allowance will be made in accordance with Sec II, WD Cir 356, 1944.

4. COL PASH is designated an Official Courier for the purpose of carrying classified and unclassified documents. Each package containing official documents that are exempt from examination will bear on its exterior cover the inscription: "Official United States Army Mail, exempt from censorship".

5. Information concerning War Department, Army or personal activities of a military nature within this theater will not be discussed in private or public and will not be disclosed by means of newspapers, magazines, books, lectures or radio, or any other method, without prior clearance through the War Department Bureau of Public Relations or the appropriate Public Relations Officer of Army Installations.

6. COL PASH will have in his possession completed WD MC Form No. 81, Immunization Register.

7. TCMT. Travel directed is necessary in the military service. 60-114, 500-P 432-02, 03, 04, 07, 08 A 212/50425.

8. Attention is invited to classified letter, this headquarters, 16 Sept 1943, file AG 311.4, relative to clearance through customs on leaving and entering the United States.

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By command of Lieutenant General McNARNEY:

Donald C. Gallup
DONALD C. GAILUP,
Major, AGD,
Asst Adjutant General.

R E S T R I C T E D

War Price & Rationing Board 11.13
324 W. Portal Ave.
San Francisco, 16, California

Ellis
1635

Air Ministry,
Whitehall,
S.W.1

8th June, 1945

DCAS/B.W. 3

Dear Dr. Goudschmidt,

In my capacity of Chairman of the British Inter-Services Sub-Committee on Biological Warfare the results of the investigations on German work in this field have been put before me. These results, both negative and positive, are of much value, and great credit is due to the investigating teams for uncovering so much.

2. This credit goes firstly to the individual American investigators in your Mission, and to the British investigators sponsored by CIOS to whom you and your Mission gave so much assistance. Without this ready help from you and without the administrative assistance and the encouragement you gave them, I am quite certain that they could not have achieved what has been done. It was particularly good of you and your colleagues to give the British Officers all the necessary facilities.

3. I should therefore like to thank you cordially on behalf of the British B. W. authorities for the help you have given to our investigators, so ensuring that, throughout, it was as it should be, a well combined and very efficient Anglo-American effort.

Yours sincerely,

s/N. H. BOTTOMLEY

Dr. S. Goudschmidt,
ALSOS Mission,
A. P. O. 887, ETOUSA

A TRUE COPY:

BORIS T. PASH
Colonel, GSC

SECRET

16 June 1945

Subject: Summary of German Nuclear Physcis Project.

copy forwarded OSS for FEA 27 Aug 47 /s

MEMORANDUM to Major F. J. Smith:

Attached is presented an overall summary of the German nuclear physics work obtained from an analysis of the captured technical and correspondence files. The previous indication given by the Strassburg report that the German nuclear physics project was only a "Class B" enterprise is verified in all respects by this more complete set of documents. It isapparent that the German scientists and military leaders early in the war abandoned hope for a military application of nuclear physics, but at the same time realized that it would be a mistake for Germany to fall behind other countries in the field. Their project was therefore developed on a scale approximately comparable to a normal peace time enterprise. According to Berkei the nuclear physics project cost a total of 15,000,000 marks ($1,500,000) in the period 1940 - 1945. A rough estimate gives the following distribution of costs:

Cost of uranium metal	$200,000
Cost of heavy water	100,000
High voltage apparatus and cyclotrons	500,000
Experimental work and salaries 1940 - 42	150,000
" 1943	200,000
" 1944	300,000
" to May 1945	50,000
	$1,500,000

These figures should be considered only as qualitative evidence of the emphasis on various phases of the German project since the captured financial reports are not complete enough for a more accurate determination of expenditures.

JAMES A. LANE

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By CD/SR NARS, Date 25 FEB 1976

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WAR DEPARTMENT
The Adjutant General's Office
Washington 25, D. C.

AGPO-A 201 Pash, Boris T.
(21 Sept 45)

AEM/laf/rll/2525 Mun.
Br. 76520

28 September 1945.

Subject: Movement Orders.

Thru : Chief, Military Intelligence Service,
Room 1C-774, The Pentagon,
Washington 25, D. C.

To : Colonel Boris T. Pash, O-275706, GSC.

1. Colonel Boris T. Pash, O-275706, GSC, is relieved from assignment and duty, Military Intelligence Service, WD, Paris, France, from further temporary duty, Military Intelligence Service, WD, Washington, D. C., effective without delay, and assigned to Military Intelligence Service, WD, Washington, D. C. He will report to the Chief, Military Intelligence Service, for duty.

2. Permanent change of station. Travel directed is necessary in the military service. 601-31 P 431-02, 03, 07, 08 A 212/60425. EDCMR between losing agency and Military Intelligence Service, WD, Washington, D. C., 29 September 1945.

BY ORDER OF THE SECRETARY OF WAR:

THE ADJUTANT GENERAL'S OFFICE OFFICIAL WAR DEPARTMENT

Arnwn E. Mattis

Adjutant General.

Distribution:

Officer (10)
Off Br, Rec Sec, AGO, 1528 Mun.
Capt Stump, 1C-931 Pentagon
Miss Wright, 4A-940 Pentagon
Pers Br, MIS, 2B-729 Pentagon
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CG, APO 757, c/o PM, NY, NY. (airmail)

RESTRICTED

~~SECRET~~

U.S.
Morrison

22 February 1945

Dear Frank:

I am quite sorry to have missed talking with you in Washington. You will see from the reports which I have written and which will no doubt be presented as a joint report from Cohen and me, how convinced I am that the remarkable success of the Alsos visit to Strassbourg has relieved us of most necessity to worry about the possible military implications of enemy work against us. I do not want to appear inconsistent with my previous emphasis on not underestimating the enemy, but the nature of this material leaves very little doubt that while he has made an intelligent, competent application to the problem he is certainly a good two years behind.

I count upon you to help Sam and Alsos to continue the job they have done, especially if we at last occupy a large amount of enemy territory. It is even more certain that the enemy has made substantial progress in the field and has in his possession the fundamental information which can cause great harm in future years than we have ever believed before. To this end Wardenburg's and Goudsmit's facilities and their support and enthusiasm must be increased and maintained. I am sure this is consistent with the policy of your office but I would like to add my opinion just as an additional point. If you would like any further work from me on the problem of German targets, I should as always be very glad to help you.

With best regards,

P. Morrison

duc cy destroyed
ltr

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Authority NND 750112
By CD/sc NARS, Date 25 FEB 1976

~~SECRET~~

OFFICE OF THE SCIENTIFIC
RESEARCH AND DEVELOPMENT
1530 P Street, N. W.
Washington 25, D.C.

14 February 1945

TO : Major H. J. Osborn

FROM : S. A. Goudsmit

SUBJECT: ALSOS Operations in Strasbourg

NOTE: Dissemination of the information contained in the following brief account of ALSOS matters must be strictly limited. The merest suspicion by the enemy about the way of operating will make future operations futile.

Of all ALSOS operations to date, the one in Strasbourg is probably the most similar to what may be expected in Germany Proper. Its university was considered entirely German by the Nazi authorities, and was staffed by a German faculty doing part time work on German war projects.

1. Gathering of Target Information:

The original information about Strasbourg activities was very scant. Rumors through neutral sources had indicated that one scientist, Professor X, in whom ALSOS was interested, was officially on the faculty, but it was not certain whether he really worked there. After the fall of Paris, an instrument manufacturer mentioned the name of Professor Y as being in Strasbourg. He was also on the ALSOS target list. French Professors were not able to give us any additional information.

The first more concrete intelligence was obtained from scientists at the Philips Lamp Works Laboratory at Eindhoven. There, we were told about the expansion of research facilities at Strasbourg, and we were given more details about the type of work being conducted there. We also obtained the name of a younger important scientist, Dr. Z, of interest to ALSOS, who was reported as having recently transferred to Strasbourg.

The picture became much clearer, however, when we discovered in Paris catalogues of the Universities of Strasbourg for the winter of 1943 and 1944, and the summer of 1944. These yielded the following information:

a. Professor X was definitely lecturing at Strasbourg and had a full teaching load.

b. Professor Y was devoting all his time to research, probably war work.

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c. Dr. Z was not mentioned. It turned out later that his name appeared for the first time in the next addition of the catalogue.

d. Professor U, the key target for the Mission, who was believed to be in Berlin, turned out to be on the Strasbourg faculty.

e. The catalogue gave the home addresses of X, Y, U and all other faculty members. It gave the addresses of the institutes where they worked and a map of the University.

f. The catalogue moreover contained a map of Strasbourg with the current German names as changed since the occupation. Such a map was not available elsewhere at that time.

It should be noted that all relevant information was obtained from ALSOS operations. The original target information obtained through MIS, OSS and from CIOS was practically nil.

2. Planning of Operation:

The above information, gathered by the scientific members of the ALSOS Mission, was turned over to and discussed with the Military Chief when it became probable that Strasbourg might soon fall into Allied hands. The Military Chief made contact with the Command of the T-Force for the Strasbourg region. The T-Force is responsible for the capture of intelligence objectives which are not of immediate tactical importance such as Gestapo Headquarters, Axis Consulates, Nazi offices and personnel. The military members of ALSOS made detailed instructions and briefed the T-Force about the ALSOS targets. An officer and a few men stayed at T-Force Headquarters, and the Mission was kept informed about the operation so that the Military Chief and some more men could be present when the town was entered.

3. The Capture:

After the town fell, the Military Chief took possession of the laboratories, offices and homes of Professors X, Y and U. He found that X and U had left the town, but Professor Y and Dr. Z were captured together with a Dr. T, also of great interest to ALSOS, and whose presence in Strasbourg was a surprise.

Essential for the success of the operation was the fact that the Military Chief of ALSOS and his staff were given as complete a picture as possible of the scientific interests and not just mere instructions.

4. Preliminary Evaluation:

As soon as the situation permitted, the Military Chief called for the Scientific members of ALSOS to investigate the captured objectives.

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Interned German scientists were interrogated and one more, Dr. V, was segregated because of special interest to ALSOS intelligence. Practically no worthwhile information was obtained from the prisoners. However, the offices, laboratories and homes of Professor Y, X and U furnished a large amount of valuable material.

Almost no classified material was found, but various complete files of correspondence with colleagues, with official bodies, notes of meetings, fragments of computations, protocols of experiments, etc., were there.

Most of the material would have been meaningless except to the qualified scientific investigator, who can tell the writer of a letter when only his first name is given; who can tell the subject matter if it is only vaguely hinted at for security reasons; for whom formulas and names of places and of instruments create a picture of a research program.

All relevant files were taken to ALSOS Headquarters for detailed analysis. So far, this documentary evidence has furnished a clear picture of the present state of German war research in certain fields. It has given detailed information about the whereabouts of German scientists and the organization of war research in those fields. It has yielded more detailed, up-to-date and reliable intelligence about future ALSOS objectives than all previous target information combined.

That the present results are restricted to a few fields of scientific research only is due to the limitations of ALSOS personnel. The small number of scientists available at the time was barely adequate to cover the subjects of highest ALSOS priority. Several possibilities for intelligence on other subjects had to be neglected because of lack of time and qualifications.

The thorough knowledge of the German language and German methods is obviously required to be able to select the important material from among the vast amount of paper to be found at universities and other such places.

5. Future Operations:

The intelligence obtained so far has made it possible to make more precise plans for future operations. Wherever a center of scientific research becomes available on the Western Front, it is contemplated to deal with it in approximately the same way as was the University of Strasbourg. The priorities of the operations are determined by the information now at hand, by the qualifications and interests of the available ALSOS scientists, and by the available military equipment.

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Most, though not all, of the intelligence collected by ALSOS has only long range value. It deals with research and early development and indicates potential rather than immediate danger from new enemy weapons. Its results will, therefore, be of benefit to those of our research organizations which will continue war research after the cessation of facilities.

REPEAT NOTE: The unnecessary dissemination of the information contained in this report can jeopardize future operations of ALSOS and other intelligence teams.

S. A. GOUDSMIT

cc: Colonel Nicholas
Colonel Gruhn
Lt. Comdr. Old
Dr. Waterman
Colonel Adams (noted by Col Adams)
Maj Smith
Lt Goudsmit (2)
noted by Gen Roberts.

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ALSOS Mission General

ALSOS MISSION
HEIDELBERG

29 April 1945

SUBJECT: Alsos Activities.

TO : Lt. Colonel GEORGE R. ECKMAN, Alsos Mission, APO 887, U. S. Army.

1. In view of the fact that the time element does not permit to write a formal progress report on the southwest operation, the facts are submitted herewith for a brief preliminary report to the War Department. Colonel B. T. Pash was designated by the Commanding General, Sixth Army Group, as Commanding Officer of a special "T" Force.

2. a. On 22 April 1945 a "T" Force consisting of a battalion of combat engineers plus the operational unit of the Alsos Mission moved across the Horb bridgehead (Nekkar River) into Wurtenberg. One town of primary importance to the Mission was taken without opposition and all targets secured.

b. On that same day an attempt was made to move into another town but due to presence of the enemy, a short engagement was had and after inflicting casualties on the enemy and taking eight (8) prisoners, the unit consisting of one platoon of engineers, two armored cars of the Alsos Mission and three jeeps with Agents and Military personnel withdrew to town mentioned in sub-paragraph "A". This road could not be used because a bridge was blown.

c. On the next morning the force mentioned in sub-paragraph "b" moved in another direction and occupied the second objective where a total of twenty five (25) scientists and technical people were apprehended and seven (7) targets secured. The scientists included everyone but one who were expected to be found in that area. Headquarters of the "T" Force was moved into this town and established at one of the targets.

d. That same evening the unit consisting of a company of combat engineers, plus the armored unit of Alsos took the third town in which targets were listed. After a brief engagement with a strong enemy force which was based in a town one mile away, the task force withdrew to the base. The burgomaster of the town who tried to incite the Volkstrum against the task force was taken prisoner and his assistant shot.

e. In view of the fact that it was necessary to exploit the town mentioned in sub-paragraph "d" and because it was necessary to proceed through the defense position of the enemy to occupy the fourth important town, it was decided to take the positions occupied by the enemy. On the morning of

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24 April 1945 a task force consisting of a Company of Engineers and the armored unit of the Alsos Mission reoccupied the third objective and from there made contact by phone with the enemy in a little town one mile away. An offer was made to the enemy to surrender and put out white flags. Upon hearing that they were up against an American unit and that the Commanding Officer of the unit was determined to go through, the town surrendered, and at 1423 hours on 24 April 1945 Colonel Pash accompanied by General E. L. Harrison, Assistant Chief of Staff, G-2, Sixth Army Group moved in and accepted the surrender of the town. This permitted the "T" Force to move through a mountain pass onto the fourth objective. This was planned for the next morning.

2. On 25 April 1945 the same task force moved through the mountain pass clearing heavily constructed road blocks in record time and contacted the fourth objective in which were found three targets, one important personality target and extremely valuable secret documents.

3. Exploitation of the targets mentioned in paragraph above proceeded with considerable success. It is planned to move the task force out of that area on 29 April 1945.

4. All these operations were carried out in advance of the French troops who were given the assignment of occupying and clearing this area of the enemy.

5. Future plans for the Mission will be communicated to you as soon as they have been worked out.

BORIS T. PASH
Colonel, GSC
Chief of Mission

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HEADQUARTERS
SIXTH ARMY GROUP
A C of S, G-2

29 April 1945

SUBJECT: Special "T" Force, Wurtemberg Area, Southwestern Germany.

TO: Commanding General, Sixth Army Group, A.P.O. 23, U.S. Army.

1. By direction of the Supreme Commander, a special intelligence mission of great importance to the British and United States governments was assigned to this command. The mission was to plan and execute a special operation in the Wurtemberg area, southwestern Germany, in order to obtain complete intelligence of a special war research project of the enemy, through seizure and exploitation of persons, documents, buildings, and materials.

2. Colonel Boris T. Pash, G.S.C., O-275706, Chief, Alsos Mission, Military Intelligence Service, War Department, was designated by the Supreme Commander to carry out the mission. Colonel Pash was attached to Headquarters, Sixth Army Group for the purpose of this operation. By order of this command, Colonel Pash was designated Commanding Officer, Special "T" Force.

a. Target information was submitted by Alsos Mission to this headquarters. Plans were prepared and orders issued by this Headquarters for a combined air and ground operation by VI Corps, Seventh Army, and Thirteenth Airborne Division, First Allied Airborne Army.

b. On 20 April 1945, the tactical situation changed materially due to the rapid advance of the First French Army towards the target area. Plans were changed and the air operation was cancelled. On 21 April 1945, Colonel Pash, with his headquarters, moved into the French area near Freudenstadt with the 1269th Combat Engineer Battalion which was assigned for this operation. The members of Alsos Mission with the Special "T" Force Headquarters included 14 U.S. Officers, 7 British Officers, 3 expert consultants of the War Department, 8 Counter Intelligence Corps Agents, 15 U.S. enlisted men, and

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...e British enlisted man.

c. In order to insure complete cooperation by VI Corps and later by French Army authorities, this officer personally visited the two headquarters and transmitted the desires of the Commanding General. This officer then remained with the Special "T" Force until the combat phase of the operation was completed in order to insure that tactical developments in the area would not interfere with the successful completion of the special operation.

d. The complete operation extended from 21 April 1945 until 29 April 1945. From 22 April through 25 April, the Special "T" Force advanced in strength and operating personnel secured all targets in the towns of Haigerloch, Hechingen, Bisingen, Thanhein, and Tailfingen, overcoming substantial enemy resistance in several sectors. During the remaining days, the special targets in the general area were exploited by Alsos Mission scientific members of the Special "T" Force.

3. The Special "T" Force operation was a success in all its phases. Complete intelligence was obtained from both known targets and targets of opportunity.

a. Previous Alsos Mission intelligence indicated that four important laboratories were evacuated to the Hohenzollern area, namely, at Haigerloch, Hechingen, Tailfingen and Bisingen. These laboratories were expected to possess the key secret documents, equipment, and materials of special interest, and to be staffed by the outstanding German scientists in the special field of research.

b. The places were found exactly as expected. One important personnel target had left for the Munich area about two weeks previously. All other personnel were present and the laboratories were in tact. After considerable persuasion, Alsos personnel succeeded in learning the hiding places of the critical material and of the secret documents

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which had been allegedly burned. Some of the German personnel were cooperative but others were quite reserved. It was decided to evacuate six of the scientists and two pieces of equipment, together with all relevant documents.

e. The results obtained by the investigation of this area have given a complete and detailed picture of the progress made on the special project in Germany. The documents captured may furnish some new ideas and similarly the pieces of equipment can eventually lead to important developments.

EUGENE L. HARRISON
Brig. General, U.S.A.
A C of S, G-2

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ALSOS MISSION HEADQUARTERS
SOUTHERN BASE
c/o HEADQUARTERS
SIXTH ARMY GROUP
OFFICE OF THE ASSISTANT CHIEF OF STAFF, G-2
APO 23
U.S ARMY

12 May 1945

SUBJECT: Munich Operation

TO : Col. Boris T. Pash, GSC
Chief, ALSOS Mission
G-2 Headquarters ETOUSA
APO 887, U. S. Army

1. As Commanding Officer, ALSOS Southern Headquarters at Heidelberg, Germany, this officer prepared plans to exploit the Munich area with the T-Force operation of Headquarters, Sixth Army Group, in order to secure certain high priority personnel and documentary targets primarily in TA and BW fields. On 29 April 1945, at Heidelberg, a group was alerted for this operation. T-Section, G-2 Headquarters, Sixth Army Group, was notified of the plans, the departure date, and the names of the Mission personnel.

a. On 30 April 1945 at 1030 the group departed from Heidelberg. Under the command of Major Ham, the group included Dr. Carl Baumann, Major Barnes, (R.A.M.C.), Capt. Cromartie, Capt. Augustine, Lt. Ditesheim, Agents Koenig, McIntosh, and Previti and three enlisted drivers. The party attempted unsuccessfully to locate T-Force at Nordlingen and Neuberg. As T-Force Headquarters had moved, the party remained overnight at Schrobenhausen, a small town about fifty miles northwest of Munich.

b. On 1 May 1945, after checking with division, regiment, and battalion headquarters, it was determined that the roads from the north to Munich were clear. The ALSOS group entered Munich at 1030 and established contact with T-Force Headquarters which had arrived the evening before. The ALSOS unit then arranged for billet and headquarters. In the afternoon a group consisting of Major Ham, Dr. Baumann, Lt. Ditesheim, Agent Previti, and a driver, went to the home of the first target, Dr. Gerlach. Although Dr. Gerlach was not at his residence, his wife was present and accompanied the group to the university where the professor was located. In security checking the residence of Dr. Gerlach, a major in the Luftwaffe was discovered, made a prisoner of war, and later turned over to the Prisoner of War Enclosure of the 45th Division at Munich. At the University of Munich, Dr. Gerlach was located in the basement offices of the Physics Laboratory. He was taken to his residence where he was interrogated by Dr. Baumann.

c. On 2 May 1945, Dr. Gerlach was further interrogated. All pertinent documents at the physics department of the university were examined by Dr. Baumann, and those of interest to the Mission secured and evacuated. From the interrogation, the possible location of the second primary target, Dr. Deibner, was determined. At noon of the

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ALSOS Mission General General 1945

same day. Major Blake, with Lt. Toepel, Agent Oates, and a driver, arrived to establish liaison from Colonel Pash's group. In the afternoon, a unit consisting of Major Ham, Dr. Baumann, Lt. Ditesheim and Lt. Toepel, with a driver, located the second primary target, Dr. Deibner at Schongeising, approximately 20 miles southwest of Munich. Dr. Deibner, with certain documents, was evacuated to Munich, and arrangements were made for the evacuation of his family the next day to their former home at Stadtilm. On 2 May 1945, Major Barnes and Capt. Cromartie inspected targets at Dachau. In the late evening the aeronautical team, of Dr. Robinson and Dr. Kemper, together with Lt. Reeves, arrived from Heidelberg.

d. On 3 May 1945, the two primary personnel targets, Dr. Gerlach and Dr. Diebner, together with documents, were evacuated from Munich to Heidelberg by Major Ham, Lt. Toepel, Agent Koenig, and driver. Upon arrival at Heidelberg, a message was relayed to Paris Headquarters, ALSOS Mission, that the targets had been located and secured. Captain Augustine remained at Munich and carried out instructions to exploit targets of interest to the other technical personnel remaining in Munich. Major Blake left Munich at 0900 to establish contact with Colonel Pash. Agent Previti, with a driver, evacuated the family of Dr. Diebner to Stadtilm with instructions to return to the base at Heidelberg.

e. On 4 May 1945 at 0230, Major Blake arrived at Heidelberg with the third personnel target, Dr. Heisenberg, who had been secured by the unit under Colonel Pash. On the same day, additional vehicles and drivers were sent from Heidelberg to Munich to assist the group remaining there. Dr. Baumann remained at Munich exploiting targets of general chemical interest, while Maj. Barnes and Capt. Cromartie continued work on BW targets.

f. On 5 May 1945, Maj. Barnes and Capt. Cromartie located a primary BW Target, Dr. Kliewe in a small town near Munich, and evacuated him to Munich headquarters.

g. On 6 May 1945, after completion of exploitation of BW targets in the area Major Barnes and Capt. Cromartie returned to Heidelberg with Dr. Kliewe.

h. On 7 May 1945, a unit consisting of Dr. Robinson, Dr. Kemper, Capt. Matting, and a driver, was dispatched from Munich to exploit aeronautical targets in the Salzburg area. Capt. Augustine then closed the Munich headquarters and evacuated remaining personnel and documents to the Heidelberg headquarters.

2. In general, the Munich operation was a rapid and successful one. Personnel targets of interest to the Mission were secured and evacuated according to plan. All documents of interest in the high priority fields were evacuated direct. Liaison was maintained with T-Force Headquarters. All targets in the southern Munich area were exploited by scientific members who desired to participate in the operation. The Munich headquarters was closed on 7 May 1945 since it was decided that further exploitation of targets in the Munich and

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Austrian areas could be handled from the Heidelberg headquarters as the need arose.

R. C. HAM
Major, Inf.

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HEADQUARTERS
EUROPEAN THEATER OF OPERATIONS
UNITED STATES ARMY
ALSOS MISSION
APO 887

13 May 1945

SUBJECT: Alpine Operation

TO : Chief, Military Intelligence Service, War Department,
Washington, D.C.
(Att: Chief, Foreign Branch)

1. The completion of the Alsos Special Operation in Southwest Germany, reference letter this office to the Chief, MIS, War Department, dated 14 May, 1945, found the Mission in possession of all but three important personnel targets. Information obtained during the operation indicated that the three missing scientists might be located in the Munchen area or in the town of Urfeld, in the Bavarian Alps. Therefore, two operational teams were formed 30 April, 1945, for the purpose of searching for and seizing the three remaining targets.

2. Major R. C. Ham was designated as commander of the Munchen operations and Colonel Pash assumed charge of the Urfeld team. Major Ham's assigned mission was to exploit general targets in the Munchen area as well as conduct a search for the high priority personalities. Colonel Pash and Major Ham moved out with their units from Alsos Advance Base, Heidelberg, at 0700, 1 May, 1945. Details of Major Ham's operations are covered in attached report. The activities of the Chief of Mission's task force are set forth below:

3. All intelligence indicated that a highly important personnel target of the Mission had departed for and would be found in the town of Urfeld, located on the Walchensee in the upper Bavarian Alps. On 1 May, the task force under command of Colonel Pash and consisting of Lieutenants Edell, Brown and Fiebig, Special Agent Beatson, Sergeants Brown and Dolan and the following PFC's: Linton, O'Connor, De Sisto and Bowker departed in two armored cars and two jeeps.

4. In view of the rapid movement of the army units, the Seventh Army Headquarters was not located. Contact was made with G-2, XXI Corps to whom the mission was explained. The Thirty Sixth Division Headquarters was also bypassed because of failure to locate them and the lack of time to look for them. Contact was made with the 36th Reconnaissance platoon commanded by Lt. Frank Anderson who had the mission of reconnoitering the Walchensee area.

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5. On 2 May a reconnaissance of the approaches to the Walchensee area showed that the bridge in the road had been destroyed and no vehicles could approach the city of Urfeld. It was then determined to take a foot patrol across the mountains into Urfeld. This foot patrol consisted of the Alsos Mission Task Force and a ten man patrol of the reconnaissance unit. Urfeld was reached and occupied without resistance at 1630 hours, 2 May 1945. At 1745 a small force of Germans attempted to come into the town and in the ensuing engagement the enemy suffered the loss of two men killed, three wounded and fifteen prisoners. At 1800 hours the patrol of the reconnaissance unit withdrew back to their base near Kochel.

6. At 1900 hours groups of two and three German officers came into Urfeld to discuss terms of surrender indicating that there was a force of approximately 700 men in the surrounding mountains. It was then decided by the Commanding Officer of the Alsos unit that under no circumstances could the town be held by the unit and a decision to remain would have jeopardized the execution of the mission. Therefore, after bluffing the Germans in an indication of force, the Alsos unit withdrew on foot to its starting point near Kochel. That night the bridge was repaired by the engineers attached to the 142d Infantry Regiment. A conference was held with Lt. Colonel Simpson, commanding the Third Battalion, 142d Infantry, whose mission it was to go into the Walchensee area to clear it of the enemy. It was decided that the 36th Reconnaissance platoon plus the Alsos unit would go into Urfeld at 0600 hours, 3 May 1945 and a battalion of infantry would follow an hour later.

7. On 3 May the plan mentioned in paragraph 2 above was executed. The personality target was picked up and evacuated. During the investigation it was found that Colin Ross, well known propaganda agent resided in Urfeld and that he shot his wife and himself three days prior to the arrival of the American forces. This information was transmitted to the Chief, Counter Intelligence Branch, Sixth Army Group and to the Officer-in-Charge of the "T" Sub-section, Sixth Army Group. The Mission withdrew from Urfeld at 2000 hours on 3 May and returned to Heidelberg on the morning of 4 May 1945.

8. Siezure of the important personnel target, reported above, together with the additional capture of two high priority personalities covered in attached report, completed the major operations of the Alsos Mission in the area. The personal interest and cooperation of the Commanding General, Sixth Army Group, his Chief of Staff, AC of S, G-2 and AC of S, G-3, were important factors in the success of the Alsos activities in their area of responsibility.

BORIS T. PASH
Colonel, GSC
Chief of Mission

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WAR DEPARTMENT
MILITARY INTELLIGENCE SERVICE
WASHINGTON

1 June 1945

SUBJECT: Discovery and Securing of the Planning Office of the Reichsforschungsrat

TO : Colonel Boris T. Pash, Commanding Officer, Alsos Mission

1. In accordance with your verbal request, the following statement is submitted regarding action taken by Alsos personnel pursuant to the discovery and securing of the Planning Office of the Reichsforschungsrat, including Professor Werner Osenberg and his staff at Lindau, Germany.

2. An Alsos field party in charge of Major Fisher arrived at Goettingen at noon on 11 April 1945. One of the primary objectives of this party was to find and secure the person of Professor Werner Osenberg, Chief of the Planning Board of the Reichsforschungsrat. It was known from Alsos intelligence sources that Osenberg had recently been in residence at, or near Northeim, some fifteen miles north of Goettingen.

3. During the afternoon of 11 April the Alsos party interrogated several German personnel targets at Goettingen. Here, it was learned from Dr. Telchow, Director of the Kaiser-Wilhelm Gesellschaft, that Osenberg's office and residence was actually at the village of Lindau, afew miles east of Northeim. Telchow said he had been in contact with Osenberg three days earlier, but that contact had been broken due to the American advance.

4. On the morning of 12 April, it was learned from combat units operating north of Goettingen that the tactical situation had so improved as to make possible a visit to Lindau. At approximately 1000 hours on 12 April, Major Fisher, 1st Lt. Rosenberger and Agent Hicks of Alsos arrived at Lindau by jeep. A civilian in the village conducted the party directly to the Osenberg establishment. Leaving Agent Hicks as guard at the entrance of the main building, Major Fisher and Lt. Rosenberger were conducted to the office of Prof. Osenberg(where they were received with some ceremony. A preliminary interrogation of Osenberg was conducted on the spot, followed by a brief study of secret files and a survey of the establishment.

5. As result of the interrogation and survey, Major Fisher abandoned his original intention of arresting and evacuating Osenberg immediately. This decision was made in consideration of the extremely cooperative attitude of Osenberg and his staff, the size of the organization and the great

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wealth of intelligence material pertaining to German war research which the establishment contained. It was believed to be in the best interests of over-all intelligence results for the Osenberg establishment, including personnel, files and physical equipment, to be kept intact at the original location until they could be investigated thoroughly by Alsos and other Allied intelligence agencies, which would be notified at the earliest possible date. The extreme urgency of providing a strong security guard at the establishment was immediately recognized. This was emphasized by Osenberg's anxiety that two of his "disloyal" staff members, who had disappeared during the preceding night, would return with the "SS" to destroy secret documents and possibly commit reprisals against persons remaining behind. Pending the posting of a guard, it was considered necessary for security reasons to remove temporarily a small number of certain key files. These were taken to Goettingen by Major Fisher at noon on 12 April.

6. Immediately after noon, 12 April, Lt. Rosenberger and Agents Hicks and Leonard were installed as a provisional security guard at the Osenberg establishment and Doctors Colby, Smyth and Fieser, of the Alsos scientific staff, were brought from Goettingen to Lindau, where they devoted most of the afternoon to questioning Osenberg and examining documents. During the afternoon, Major Fisher visited the nearest military headquarters, the forward command post of the American First Division, which had been established during the day at Osterode, a few miles north of Lindau. The Lindau discovery was reported to the Division G-2, and a request made for guard troops to secure and protect the establishment and resident personnel. Although the Division G-2 made a strong recommendation that such a guard be provided, it was finally decided by Division Operations that no combat troops could be spared for such duty. In the absence of a more adequate guard, Lt. Rosenberger and Agents Hicks and Leonard remained on duty at Lindau patrolling the establishment throughout the night of 12 April.

7. On the morning of 13 April, Major Fisher contacted Lt. Col. Horwitz, Commanding Officer of the 997 F.A.Bn, stationed at Goettingen on security guard assignment and requested his assistance with guard personnel. When Col. Horwitz was informed of the urgency of the situation at Lindau, he agreed to provide a temporary guard detail for the Osenberg establishment, even though the location was several miles outside the area for whose security he was responsible. Lt. Enbody and four (4) enlisted men from Colonel Horwitz' command were detailed to accompany Major Fisher to Lindau immediately. At Lindau, Lt. Enbody made a survey of the Osenberg establishment in order to determine guard requirements and returned to Goettingen with a report, after installing the four (4) enlisted men as guard relieving the Alsos personnel who had by this time been on guard duty continuously for twenty (20) hours. In the afternoon of 13 April, a guard detachment of two (2) officers and twelve (12) enlisted men from Col. Horwitz battalion was moved from Goettingen to Lindau and established there under command of Captain Vunk. Later the guard was increased to eighteen (18) enlisted men.

8. Communication facilities being inadequate, Major Fisher drove from Goettingen to First Army Headquarters at Marburg on the afternoon of

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15 April to report the Lindau discovery through army channels. The discovery was reported verbally to Lt. Col. Vendenhall, Chief of the "I" Branch, G-2, First U. S. Army, and it was recommended that the Army take such steps as were necessary to insure that an adequate guard could be maintained at the Lindau Installation. A letter dated 14 April 1945, addressed to the Commanding Officer, Alsos Mission, reporting the discovery of the Osenberg Office was prepared by Major Fisher at First Army Headquarters. Copies of this letter were forwarded by G-2, First Army, to Hq., Twelfth Army Group and to SHAEF. Representatives of CIOS and NavTecMisEu intelligence teams were encountered by Major Fisher at First Army Headquarters on 13 April. They were notified informally of the discovery of the Osenberg installation and that it contained intelligence material of interest to both their missions. It was recommended that representatives of these agencies be sent at the earliest practicable date to Lindau, and Alsos assistance was offered in regard to their work at Lindau.

9. During the three days following the discovery of the Osenberg Office, Drs. Colby and Smyth devoted their time primarily to work on the Lindau target. On 16 April, a message was received by courier from the Scientific Chief of Alsos, which made it necessary for Drs. Colby and Smyth and Major Fisher to proceed to a higher priority target at a distant place.

10. After arrival of the guard detachment under Captain Vunk, Lt. Rosenberger remained at Lindau for two more days while he devised and put into operation a security pass and check system to control the movement of all persons into and out of the Osenberg establishment. Such control was considered necessary in view of the large number of persons concerned as employees of the establishment and supplying food and other services to the organization. Administration of the pass system was handled by Captain Vunk, commanding the guard.

11. Beginning on Sunday, 15 April, representatives of other intelligence agencies including CIOS, NavTechMisEu and SIAS of SHAEF began to arrive at Goettingen and Lindau. Arrangements for admission of these working parties to the Osenberg establishment were provided within the established security pass system.

Russell A. Fisher

RUSSELL A. FISHER
Major, AC
Alsos Mission

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BY NARS, Date

Boris Pash
Alsos Mission
General
General
1945

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ALSOS ADVANCED BASE SOUTH
c/o G-2, Sixth Army Group
APO 23
U. S. Army

25 June 1945.

SUBJECT: Progress Report.

TO : Colonel Boris T. Pash, GSC, Chief, Alsos Mission, G-2 Section, Headquarters Section ETOUSA, APO 887.

1. Pursuant to instructions received from the Chief of Mission, this officer proceeded to Heidelberg, Germany, on 13 April 1945 to assume command of the Southern Advanced Headquarters and be responsible for general operations in that area. This information is a chronological [illegible] thern area since

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Alsos Mission
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No. F.B.I.-T.S. JAN 13 1941

Mr Boris L. Pash (WHOSE SIGNATURE APPEARS ON REVERSE SIDE) EMPLOYED IN THE FEDERAL BUREAU OF INVESTIGATION OF THE

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Turnabout of these June 41
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ALSOS ADVANCED BASE SOUTH
c/o G-2, Sixth Army Group
APO 23
U. S. Army

25 June 1945.

SUBJECT: Progress Report.

TO : Colonel Boris T. Pash, GSC, Chief, Alsos Mission, G-2 Section, Headquarters Section ETOUSA, APO 887.

1. Pursuant to instructions received from the Chief of Mission, this officer proceeded to Heidelberg, Germany, on 13 April 1945 to assume command of the Southern Advanced Headquarters and be responsible for general operations in that area. The following information is a chronological progress report of activities in the southern area since 13 April 1945:

a. 13 April 1945: At 0730 a group departed from Paris with two jeeps and one 2½-ton truck for Heidelberg. The group included Lt. Col. Foran, Major Ham, Capt. Cromartie, Lt. Parish, Sgt. Thurgood, and Pfc's Miles and Makar. The Heidelberg headquarters were reached at 2000 hours. The situation at Heidelberg was as follows:

(1) One base, Advance, was in operation at Schlierbach under direct command of Colonel Pash. Advance headquarters included:

Colonel Pash
Major Blake
Lt. Ditesheim
Lt. Brown
Lt. Toepel
Lt. Waclo
Lt. Fiebig
Agents Beatson, McIntosh, Fiendt, Koenig, Previti, Oates
Enlisted Men: Lusnia, Brown, Dolan, DeSisto, Linton, Bowker, O'Connor

(2) The Main headquarters, southern base, is located at Philosophenweg 16 and vicinity where three houses, a garage and a

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restaurant are in operation for the mission. Upon this officer's arrival, the following personnel were based at Main headquarters:

Captain Augustine
Captain Matting
Lt. Warner
Lt. Weimer
Major Adam
Major Barnes
Lt. Hofer
Dr. Bates
Dr. Baumann
Dr. Brode
Dr. Fieser
Lt. Cerame
Agents Cullinan, Abella, Bray, Madeira
Enlisted Men: Young, Uhlig, Schwab, White, Balassa, Glover, Bennett, Colon and Hansen

(3). Captain Augustine returned from a trip to Göttingen on this date. Lt. Ditesheim, Agent Previti and S/Sgt Schwab departed for Stadtilm.

b. 14 April 1945: Major Barnes (British) and Capt. Cromartie left Heidelberg with Sgt. Wooley in a jeep for a week's trip of BW targets in 12th AG area. Dr. Brode and Lt. Gormley, USNR, departed on a two-day trip to exploit T-Force targets at Frankfurt. Major Clark Bullock arrived from Aachen headquarters. Capt. Augustine and Lt. Warner with Agent Madeira arrived from Stadtilm. Lt. Hofer and Major Adam (British) arrived from BW targets exploited near Stadtilm. In the late afternoon a group arrived from London by C-47 at air strip Y-79 near Mannheim. This group included: Colonel Sir Charles Hambro, Lt. Col. Lansdale, Major Calvert, Major Furman, Major Gettiger, Lt. Comdr. Welsh, Wing Comdr. Cecil and three RAF crewmen. In the evening Col. Pash had a detailed conference with this group re future plans for exploitation of Stadtilm and other areas.

c. 15 April 1945: With Col. Pash accompanying the group to Hq 12th Army Group at Weisbaden, a party in one CR including Col. Lansdale, Col. Hambro, Major Bullock, Lt. Weimer and driver T/4 Dolida left for Göttingen. Lt. Warner, Major Calvert and Major Gettiger went in one jeep. A separate CR departed with Lt. Comdr. Welsh, Wing Comdr. Cecil, Major Furman and driver Sgt. Thurgood for Stadtilm. After discussion of plans with General Seibert, Colonel Pash returned to Heidelberg. Capt. Augustine later left for Stadtilm with driver Bennett.

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d. 16 April 1945: Captain Augustine and driver Bennett returned from Stadtilm. Lt. Hofer and Major Adam spent the day exploiting BW targets in the area of Karlsruhe.

e. 17 April 1945: Lt. Ditesheim and Cpl. Brown brought one M-20 back from Stadtilm. Dr. Goudsmit and Major Furman left Stadtilm to go to Göttingen by plane. Mr. Wardenburg, Mr. Lane, Lt. Comdr. Welsh, and Wing Comdr. Cecil left Göttingen by plane for Paris. Returning from Stadtilm to Heidelberg in two CRs and two jeeps were: Lt. Toepel, S/Sgt Schwab and Sgt. Thurgood, Agent Edlund, Pfcs Bowker, DeSisto and O'Connor. Agent Previti brought down a 2½-ton truck from the 81st Div. with a load of project material. Instructions were received from Major Furman to store the material until further arrangements could be made. Col. Pash flew from Heidelberg to Paris to discuss plans of "Humbug" operations with an airborne headquarters. Message was sent to Lt. Col. Eckman from Heidelberg to determine from reports and material obtained at Stadtilm and Göttingen any new addresses for operations in the SW Germany area.

f. 18 April 1945: Dr. Fieser with Agent Hicks arrived from the north with information on search for German Chemical Society Library. Lt. Hofer and Major Adam with Pvt. Hansen departed for Jena and vicinity on BW work. In the evening Major Blake had a conference with General Harrison, G-2, 6th AG re situation in SW Germany. It was determined that the French had a bridgehead at Horb. Plans were made to send parties down to determine the extent of the bridgehead and availability of the area.

g. 19 April 1945: Major Blake took a group to T-Force headquarters at Maulbronn, but returned after situation was clarified. Lt. Ditesheim went to the French bridgehead at Horb to determine the situation. Col. Pash arrived by plane from Paris and was acquainted with the situation.

h. 20 April 1945: At 1230 Col. Pash moved the advance unit to Ohringen, 6th Corps Headquarters. This group, departing in 6 jeeps, two trailers and two M-20s included: Col. Pash, Major Blake, Lt. Ditesheim, Lt. Edell, Lt. Toepel, Agents Beatson, Feindt, Koenig, McIntosh and enlisted men - Dolan, Lusnia, Brown, DeSisto, Linton, Bowker, O'Connor and Thurgood. Lt. Brown and Lt. Fiebig flew from Paris to the 7th Army Headquarters to join the advanced group at 6th Corps Headquarters. Major Barnes, Captain Cromartie and Sgt. Wooley returned from a trip of BW targets in the north. In the afternoon, Col. Lansdale, Col. Sir Charles Hambro and Major Gettiger arrived by plane from Göttingen. They were briefed on current plans and departed in the afternoon for London. Col. Hambro stated Lt. Col. Perrin would

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be sent back on 22 April. After discussion with Col. Pash, Major Ham called Lt. Col. Eckman at Paris and requested a 2½-ton truck be sent here to evacuate project material received from the north. Lt. Col. Eckman was advised that Dr. Goudsmit had departed from Göttingen for 21st AG area on 18 April.

i. 21 April 1945: Mr. Lane, Mr. Wardenburg and Agent Oates arrived from Paris by jeep. Dr. Fieser left with Agent Hicks to visit Headquarters 12th Army Group at Weisbaden and then to Göttingen. A letter was sent to Headquarters 12th Army Group re discovery of stores of arms in certain caves by Dr. Fieser. Lt. Hofer, Major Adam and driver Hansen returned after locating Dr. Haagen in a hospital near Saalfeld in 3rd Army area. Col. Pash moved his headquarters into the area near Horb.

j. 22 April 1945: Message received from Paris headquarters that British party would fly over tomorrow. Dr. Goudsmit will arrive on the 24th. General Harrison arrived back from 6th Corps and relayed message from Col. Pash that technical personnel should go to Horb tomorrow. Major Barnes went to Paris by plane for interview of personnel target. One 2½-ton truck arrived from Aachen with Lt. Hormel and driver Pfunder. Col. Pash's unit entered Haigerloch.

k. 23 April 1945: Two jeeps and one trailer left Heidelberg to join Col. Pash at Horb with Mr. Lane, Mr. Wardenburg, Lt. Parrish, Capt. Cro[illegible]tie, Agent Oates and driver Pitts. Major Ham, with agent Madeira, drove to Weisbaden and contacted the executive officer, G-2, Headquarters 12th AG re evacuation of Dr. Haagen. Liaison was established with Lt. Col. Hearn, Chief CIC 12th AG. Col. Pash and his unit moved into Hechingen, established headquarters there and also into Bisingen. By C-47 at Y-79 Mannheim, a group arrived from London which included three RAF crewmen, W/Cmdr. Vivian, Col. Hambro, Lt. Col. Perrin, Major Gettiger, Lt. Comdr. Welsh, Comdr. Norman, Wing Comdr. Cecil, one British EM and Col. Lansdale.

l. 24 April 1945: A second group departed to join Col. Pash: Lt. Waclo, Agent Previti, Agent Edlund, Lt. Col. Foran, Lt. Col. Perrin, Lt. Comdr. Welsh, Lt. Comdr. Norman, Wing Comdr. Cecil, a British EM and EMs Young, Balassa, Miles, Colon, Bennett and Dolan. One jeep and trailer, two CRs and one 2½-ton truck left. Lt. Hofer, Major Adam with Sgt. Wooley left in jeep for a trip in the northern area. Lt. Hormel and driver Pfunder drove the 2½-ton truck with project material to Paris. Col. Pash and his unit took Thanheim. Major Ham, Major Furman, Major Gettiger and Col. Hambro flew in a C-47 to Hildesheim, Weisbaden and Rheims. At Rheims Lt. Col. Eckman was

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contacted and Major Ham flew to Paris per instructions; the others returned to Mannheim airport.

m. 25 April 1945: Dr. Bates, Lt. Carr and Agent Cullinan left in a jeep for Stuttgart area. Col. Pash and his unit exploited Tailfingen. Capt. Augustine prepared plans for a trip to Czecho-Slovakia with Comdr. Vivian; but trip later was cancelled. Major Ham remained at Paris discussing plans and operations with Lt. Col. Eckman. Dr. Griggs and Dr. Goudsmit arrived from Paris by plane.

n. 26 April 1945: A third group left Heidelberg to join Col. Pash. The group included: Capt. Augustine, driver Hansen, Dr. Goudsmit, Dr. Griggs, Col. Hambro, Major Gettiger, Major Furman, Dr. Baumann, Lt. Ditesheim, Agent Bray and Major Barnes. Major Ham returned from Paris and contacted Col. Pash who returned from the southern area. Lt. Hofer and Major Adam left on another trip to Jena.

o. 27 April 1945: Mr. Wardenburg, Mr. Lane, Lt. Parrish, Capt. Cromartie, Agent Oates and driver Pitts arrived from southern area. Six guests from that area were also brought to Heidelberg and kept in Alsos billets.

p. 28 April 1945: Dr. Griggs and Mr. Wardenburg flew to Paris from Heidelberg. After a detailed discussion last night and this morning the British group flew to Paris, then to London. This included Col. Lansdale, Col. Hambro, Major Furman, Mr. Lane, Major Gettiger, Wing Comdr. Norman, Wing Comdr. Cecil, Comdr. Vivian, Lt. Comdr. Welsh, one British EM and the RAF crew. Major Ham prepared a draft letter for General Harrison to be sent to General Devers and then to General Smith on the successful completion of the southwestern operation. Dr. Fieser and Agent Hicks arrived from the north.

q. 29 April 1945: Lt. Parrish and driver Colon left in a jeep for Weisbaden to pick up some trucks loaded with material and take them to Paris. T Section Headquarters 6th AG were notified that the Alsos group would depart for the Munich operation. Col. Pash returned to the southwestern area to close out activities there. Capt. Matting with Agent Hicks departed for the north to evacuate certain personnel. Major Bullock, Lt. Warner and Lt. Weimer arrived from the north.

r. 30 April 1945: At 1030, a group departed to join "T" Force for the Munich operation, with one C&R, three jeeps and one trailer. The group, under command of Major Ham, including Dr. Baumann, Major Barnes, Captain Cromartie, Captain Augustine, Lt. Ditesheim, Agents

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Koenig, Previti, McIntosh, and drivers Pitts, Baker and Nichols. Prior to departure, "T" Sub-Section Headquarters, 6th Army Group was given a list of personnel and destination. The party proceeded via Heilbrunn to Nordlingen, where it was determined that "T" Force had moved to Neuburg. Upon arrival at Neuburg, it was discovered "T" Force had moved, and the group proceeded across country towards Munich, stopping for the night at Schrobenhausen, approximately 50 miles northwest of Munich. At Heidelberg, Dr. Goudsmit went by plane to Paris Headquarters taking with him files to turn over to the Deputy Chief. Dr. Bates, Lt. Carr and Agent Cullinan returned from a trip in Southern area. Dr. Fieser and Agent Madeira left for a field trip in the 12th Army Group area.

s. 1 May 1945: At 0830 the Munich group left Schrobenhausen going to Pfaffenhafen and then via highway 13 towards Munich. After checking at various CP's of battalions of the 45th Division, it was determined that entry into the city could be made. The group arrived in Munich and located the Headquarters of "T" Force at 1100. After securing billets, a unit consisting of Dr. Baumann, Lt. Ditesheim, Agent Previti, driver Nichols and Major Ham went to Franz Joseph Strasse 15 and checked for Dr. Gerlach. Dr. Gerlach's wife was present and in security checking the residence, a German Major in the Luftwaffe was captured. After turning the German Major into a PW cage, the unit with Mrs. Gerlach located Dr. Gerlach in the Physics Laboratory of the university. Dr. Gerlach was evacuated to his home where he was interrogated by Dr. Baumann. A guard was placed at the residence and the university was likewise under guard. At Alsos Southern Headquarters, Col. Foran with Agent Bray departed for Hechingen area for a re-investigation. Dr. Robinson and Mr. Kemper arrived at Heidelberg from Göttingen with Lt. Reeves and driver Reynolds. Captain Matting and driver Bennett left Heidelberg for Göttingen. Col. Pash with two M-20's and two jeeps departed for the Alpine operation south of Munich.

t. 2 May 1945: At Munich, Dr. Baumann conducted further interrogation of Prof. Gerlach. After obtaining keys, an examination and search was made at the university and all pertinent documents secured and evacuated. Major Blake, Lt. Toepel, Agent Oates and driver DeSisto arrived in two jeeps from Col. Pash's group, who had departed on the Alpine operation. In the afternoon, Major Ham took a group consisting of Dr. Baumann, Lts. Toepel and Ditesheim and driver Pitts to Schongeising, approximately 25 kilometers southwest of Munich. Dr. Diebner was located and interrogated by Dr. Baumann. Pertinent documents and material were obtained and evacuated to Munich, together with Dr. Diebner. It was agreed to move Dr. Diebner's family, wife and one son, on 3 May to Stadtilm. After returning to Munich, Dr. Baumann re-interviewed Prof. Gerlach and plans were made for an early departure in the

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morning. A guard was maintained at Dr. Gerlach's residence. After dinner, Dr. Robinson, Mr. Kemper and Lt. Reeves arrived in one jeep. At Heidelberg, Major Bullock with drivers Dolida and Hansen evacuated the six guests from the Hechingen area to Rheims. Dr. Bates and Lt. Carr returned to Paris in a CIC jeep. Dr. Fieser and Lt. Warner returned to Paris via Rheims.

u. 3 May 1945: Major Ham with Lt. Toepel, Agent Koenig and driver Makar evacuated Doctors Gerlach and Diebner with documents to Heidelberg. At Heidelberg, the two were quartered in an Alsos billet. Col. Eckman was advised of the arrival of the guests and that Col. Pash was expected to bring the third guest in later. Major Blake departed 0900 from Munich to contact Col. Pash's unit and advise of the situation. At Heidelberg, Captain Matting, drivers Reynolds and Bennett and Major Fisher with driver Johns arrived from Gottingen. Agent Previti with driver Pitts drove from Munich to Schongeising and evacuated Mrs. Diebner and son to Stadtilm. Two C&R's returned to Heidelberg from Rheims with drivers.

v. 4 May 1945: Major Blake arrived at 0200 with Dr. Heisenberg. With a C&R, a jeep and a trailer, Capt. Matting went to Munich from Heidelberg with drivers Reynolds and Makar. Major Adam and Lt. Hofer, who had returned from Jena, sent a message to Major Barnes and Capt. Cromartie re future plans. Necessary passes and orders were sent to Dr. Robinson and Mr. Kemper. Orders were secured, and Major Adam, Lt. Hofer, and Sgt. Wooley drove via jeep to Paris. Agent Previti and driver Pitts returned from Stadtilm after evacuating Mrs. Diebner.

w. 5 May 1945: Paris headquarters was advised telephonically of current situation. Dr. Goudsmit left Paris by jeep for Heidelberg. Orders were requested from Paris for group in North for travel to 21st AG and 12th AG. Plans were made for evacuation after 8 May of guests to Paris. General plans were discussed with Col. Pash by Major Fisher of Northern Base, and Major Ham of Southern Base. Lts. Toepel, Weimer and Agent Previti went to Stuttgart and ran down leads of counter intelligence case of interest to Major Furman, with negative results.

x. 6 May 1945: Major Barnes, Capt. Cromartie, and Agent McIntosh arrived by jeep from Munich. In a command car from Munich, Dr. Baumann, Lt. Ditesheim, Lt. Reeves, guest Dr. Kliewe, and driver Makar arrived, with message from Capt. Augustine re future Munich plans. Dr. Goudsmit arrived at noon from Paris by jeep with driver Judkins. One truck arrived also from Paris with Lt. Ball and driver Pfunder. Dr. Mehl, Dr. Hoyt, and driver Colon arrived in evening from Paris. Dr. Kemble arrived from Weisbaden. Lt. Reeves arrived from Munich.

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Conference in afternoon and dinner at Advance base with Col. Pash, Dr. Goudsmit, Dr. Kemble, Major Fisher and Major Ham, with Lt. Col. Maulsby, G-2 Executive, Headquarters 6th Army Group.

y. 7 May 1945: Departing for Göttingen were Major Fisher, Dr. Hoyt, Dr. Mehl and driver Johns in a civilian car. Two jeeps, one C&R, and one truck went north also with Lt. Toepel, Agent Madeira, and drivers, Hansen, Bowker, Linton, Pfunder and Judkins. Major Ham telephonically advised Paris headquarters of situation. Col. Pash drove to Paris with reports on BW situation. After closing out Munich activities, Capt. Augustine, Agent Oates, and driver Nichols returned. Capt. Matting, Dr. Robinson, Mr. Kemper, and driver Reynolds, left Munich with two jeeps for trip to Salzburg, Airing, Oberammergau, and Innsbruck, covering aeronautical targets, with ETA at Heidelberg of 11 May 1945.

z. 8 May 1945: Upon completion of TD with Alsos, the following CIC's departed for Paris, in one CIC jeep with trailer, and one C&R: Lt. Reeves, Agents Abella, Cullinan, Feindt, Koenig, McIntosh, and Agent Edlund of Major Calvert's office. Capt. Augustine with driver Makar drove to Pforheim to check lead re Bottcher, with negative results. Lt. Ball and Lt. Weimer went to Worms, checked on leads there, and also picked up Pfc Bryan at Replacement Center, who returned to duty with Alsos. Dr. Baumann, Lt. Fiebig, Lt. Brown, and Lt. Waclo departed for Munich, and Urfeld. One truck with Agent Previti and driver Miles went to Munich to evacuate material from Schongeising. Major Blake, and drivers DeSisto and Colon left for Northern office; Major Blake will succeed Major Fisher who is returning to Paris and the U. S. Col. Foran and Agent Bray returned to Heidelberg from SW Germany area. Lt. Hofer, Major Adam and Sgt. Wooley returned from Paris.

aa. 9 May 1945: At 0845 a group in two C&R's drove to Paris arriving at 1930. Included were three guests (Dr. Gerlach, Dr. Diebner, Dr. Heisenberg) Dr. Kemble, Major Ham, Lt. Ball, Lt. Ditesheim, Agent Oates, and drivers Dolida and Pitts. Arrangements for handling the guests were made. Col. Pash and Scientific Chief were briefed on Southern Base activities.

bb. 10 May 1945: Lt. Col. Foran and driver Makar left for trip in Stuttgart area. Truck returned to Heidelberg from Munich with additional material, and was sent on to Paris. Interrogation of Dr. Kliewe continued at Heidelberg by BW teams.

cc. 11 May 1945: Lt. Hofer, and Capt. Henze left for Munich and Innsbruck area to trace BW documents. Arrangements made for

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air-jeep trip to Salzburg from Paris and Heidelberg on VT project. Major Furman flew to Headquarters 12th Army Group (TAC) for conference with General Siebert.

dd. 12 May 1945: Capt. Matting, Dr. Robinson, Mr. Kemper, and driver Reynolds returned from Munich and Austrian trip covering aeronautical targets. Col. Pash flew from Heidelberg to Paris. Lt. Edell, Major Barnes, and Sgt. Lusnia drove to Paris in C&R.

ee. 13 May 1945: Capt. Augustine joined USTAAF-Alsos party at Y-89, Mannheim, consisting of Capt. Randers (Norwegian), Dr. Larkin, and driver. The group flew with jeep and trailer in C-47 to Salzburg to investigate VT target, and reported in to G-2, XV Corps. At Paris Major Ham had a conference with Col. Pash. Plans were prepared for exploitation of wind tunnel target at Kochel, investigation of undeveloped leads in southwestern area, and area south of Munich, and for work of social-economic-political group to arrive and work under Alsos.

ff. 14 May 1945: Major Ham returned to Heidelberg via plane. A C&R, jeep, and trailer returned to Heidelberg with enlisted men and agents. Discussion with administrative personnel re future plans and operations. VT Group exploited Salzburg target.

gg. 15 May 1945: Administrative matters discussed with G-2 Executive, Headquarters 6th Army Group. Orders obtained for Dr. Baumann to go to Paris for conference with Dr. Goudsmit. Trucks arrived from Paris to evacuate project material from Heidelberg and Göttingen. VT Group continued to exploit target in Salzburg.

hh. 16 May 1945: Dr. Baumann flew to Paris from Heidelberg. A group, Lt. Cerame, Dr. Robinson, Mr. Kemper, and driver Nichols left in C&R for exploitation of targets in Munich area, and wind tunnel at Kochel. Major Ham, Lt. Fiebig, Lt. Brown, and Agent Beatson went in two jeeps to Munich, for development of some leads in that area. Munich billet was reoccupied. Contact was reestablished with CIC, 45th Division, and with T Force, Munich. Trucks left Heidelberg for Göttingen to evacuate some material. Message sent to Northern Base for Mr. Ebert to attend conference with Dr. Robinson and Mr. Kemper later in Heidelberg. VT Group interrogated target at Augsberg; en-route to Nurnberg had accident.

ii. 17 May 1945: The two Munich parties went to Kochel and exploited the wind tunnel target, in conjunction with a CIOS team that had just arrived. Checked on family situation of Dr. Heisenberg at Urfeld. Exploited further leads on prior targets

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south of Munich. At Heidelberg, Col. Foran returned from southwest area with driver Makar. Capt. Randers, Dr. Larkin of VT group left Augsburg for Paris by plane; Capt. Augustine and driver remained to get jeep repaired.

jj. 18 May 1945: Major Ham, Lt. Fiebig, Lt. Brown, and Agent Beatson returned from Munich to Heidelberg. Dr. Smyth and driver arrived from Göttingen, with plans to search for German radium supply near Innsbruck. Paris headquarters was advised of situation in North and South by telephone message. Lt. Hofer and Capt. Henze returned after successfully locating BW documents near Innsbruck, in addition to finding the German Surgeon General and staff, with documents.

kk. 19 May 1945: Lt. Weimer, Dr. Smyth, Agent Previti, and drivers Wooley and Colon left for Innsbruck and Munich area to search for radium. Instructions given for Sgt. Wooley to reopen Munich office. Capt. Augustine and driver returned from VT trip. Col. Foran and driver Makar left for re-investigation of southwestern area.

ll. 20 May 1945: USTAAF driver, plus four Alsos EM's departed for Paris. Courier departed for Northern base. General Conrad, G-2, Headquarters ETOUSA arrived at Y-89, Mannheim; was met by Major Ham, and visited Headquarters 6th Army Group, Alsos Headquarters, both Advance and Main, and Headquarters Conad, near Mannheim, prior to departing by plane at 1800 for Weisbaden.

mm. 21 May 1945: Initiated action at G-2, Headquarters 6th Army Group for disposition of Dr. Kliewe. With Lt. Fiebig, Major Ham went to Weisbaden; contacted Lt. Col. Hearn, re CIC Alsos detachment problems; then to Offenbach and Steinau to develop certain target leads, returning to Heidelberg. Capt. Schwartz, and driver, Surgeon General's Office, ETOUSA, arrived from Paris, to go to Innsbruck to exploit Wehrmacht Surgeon General's Office. Col. Zornig, Tech. Intelligence, ETOUSA arrived, and trip set up for Munich tomorrow. Lt. Rosenberger, and Dr. Click arrived from Göttingen enroute to Paris

nn. 22 May 1945: Capt. Schwartz and party departed for Innsbruck. Dr. Click and Lt. Rosenberger left for Paris by jeep. Col. Zornig and driver Pitts went to Munich by jeep. Trip by air to Paris set up through Headquarters 6th Army Group for Major Adam, Lt. Hofer, Capt. Henze, and Capt. Cromartie. Lt. Cerame, Dr. Robinson, Dr. Kemper, and driver Nichols returned from Munich area.

oo. 23 May 1945: Two trucks arrived from Göttingen with load of heavy project materials. Driver returned from Munich alone;

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Col. Zornig flew back to Paris. Messages relayed from Dr. Smythe. Capt. Cromartie, Capt. Henze, Major Adam, Lt. Hofer, and driver Bennett went to Paris by C&R, due to inclement weather.

pp. 24 May 1945: Two trucks went to Paris with project load, with drivers Dolan, Brown and O'Connor. Dr. Baumann, Agent Leonard, and drivers Uhlig and Bryan arrived from Paris in C&R. Arrangements made at Headquarters 6th Army Group to obtain two trucks to pick up balance of load at Göttingen for evacuation to Paris.

qq. 25 May 1945: Capt. Matting and mechanic Glover left for Munich in one jeep and trailer to set up base there. Mr. Ebert and driver Hansen arrived from Göttingen for conference with Dr. Robinson and Mr. Kemper. Col. Foran, Mr. Sarapau, an Esthonian oil specialist, and driver Makar arrived from Dotternhausen. Enroute at Bruchsal, a sniper fired a shot at jeep which narrowly missed driver. Lt. Rosenberger, and drivers DeSisto and Linton arrived from Paris. Reports for Paris headquarters prepared.

rr. 26 May 1945: Major Ham left for Paris to confer with Lt. Col. Eckman. Drivers Reynolds and Martin went to Göttingen with two Sixth Army Group trucks to complete evacuation of project material to Paris. Dr. Smyth, Lt. Weimer, Agent Previti and driver Colon returned from Innsbruck and Munich area after unsuccessful hunt for German radium supply. Lt. Col. Eckman was telephonically notified of current situation.

ss. 27 May 1945: Lt. Col. Foran, guest Mr. Sarapau, Dr. Smyth, Dr. Robinson, and driver Dolida drove to Paris in a C&R. Dr. Robinson plans to return to the U. S., and Dr. Smyth had to check on certain documents available at Paris. Mr. Sarapau was to assist Col. Foran in evaluating certain shale oil documents. Mr. Ebert with driver Hansen returned to Göttingen for further aeronautical work in that area. Agent Previti went to Weisbaden for CIC Detachment work. Capt. Henze and driver arrived from Paris, enroute to Fulda on medical targets. Lt. Col. Rothwell, on VT project, contacted Alsos by telephone from Munich inquiring as to whereabouts of two Navy officers, who were not known at Heidelberg.

tt. 28 May 1945: Capt. Henze and driver departed for Fulda. Naval Officers Lts. Aldrich, Howell, Roberts, and Crawford, of NavTechMisEu arrived from Bad Schwalbach to exploit certain targets in Heidelberg. Agent Previti returned from Weisbaden. Drivers Martin and Reynolds arrived from Göttingen with two 6th Army Group trucks, enroute to Paris. Capt. Augustine telephoned Paris headquarters requesting action be taken to get Dr. Kliewe released after

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A1588 Mission General

CIOS interrogation, and relaying a message from Capt. Henze to Surgeon General's office, Headquarters ETOUSA. Capt. Simonds, P/A to General Betts, visited Alsos Headquarters enroute to Frankfurt.

uu. 29 May 1945: Mr. Kemper, Lt. Cerame, and driver Nichols departed for Stuttgart area to exploit certain aeronautical targets there. Lt. Fiebig, with four drivers from 6th Army Group, left with two 6th AG trucks of project material for Paris. Dr. Kuiper and driver Bowker arrived from Göttingen, to exploit certain targets in southern area, prior to returning to Paris.

vv. 30 May 1945: Driver Bowker with driver Martin went to Göttingen, both permanently assigned there. Capt. Henze, Lt. Col. Howard, and driver stopped at Heidelberg enroute to Fulda to interrogate the German Surgeon General Walter and staff. Lt. Col. Ham called from Paris, requesting check on Bothe's whereabouts; also advising as to new trips to arrive, and that Dr. Smyth had flown to Frankfurt and would need a jeep and driver for a trip out of SHAEF. Dr. Goudsmit requested that Dr. Kuiper go to Freiburg for interrogation prior to returning to Paris. Col. Nordstrom, G-4, SHAEF called requesting a car for Dr. Smyth for tomorrow at Frankfurt.

ww. 31 May 1945: Capt. Henze, Lt. Col. Howard and driver left for Erlangen to interrogate the German Surgeon General. Driver DeSisto left with jeep to meet Dr. Smyth at Frankfurt. Lt. Brown, Dr. Kuiper, and agent Previti went to Freiburg to interrogate personnel target. Col. Bogart, Capt. Cromartie, Major Barnes, Dr. Hoyt, and driver Bennett arrived from Paris in C&R. Col. Bogart will join with Mr. Kemper and Mr. Ebert on aeronautical targets. Dr. Hoyt will exploit metallurgical targets.

xx. 1 June 1945: Lt. Col. Ham advised from Paris that Lt. Fiebig and drivers were returning 2 June, and that a party of four officers on social-political targets will also arrive.

yy. 2 June 1945: Lt. Brown, Dr. Kuiper, and Agent Previti arrived from Freiburg. Dr. Hoyt and Agent Beatson returned from trip to Stuttgart area. Lt. Fiebig arrived from Paris with Mr. Sarapau who was to be returned to his former residence near Dotternhausen. Dr. Click, with driver DeSisto returned from Göttingen, enroute to Paris. Lt. Col. Rothwell with driver Glover arrived from Munich. Lt. Col. Melton, Major Rasmussen, Majow Howe, and Major Hitchcock, with driver Dolida arrived from Paris for an extended tour of social-political targets in Germany. Drivers Brown and Dolan arrived from Paris with

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Alsos Mission General

a truck. Dr. Goudsmit advised telephonically that we would send Dr. Smyth down to T-Force, Berchtesgarden as a result of their request for someone to interrogate Dr. Stetter and other members of the faculty of the University of Wien, being held there.

zz. 3 June 1945: Col. Bogart, Mr. Kemper, and driver Bryan, departed for Gottingen in a C&R to exploit aeronautical targets. Dr. Click, Dr. Kuiper with driver Colon left for Paris in a jeep. Lt. Col. Rothwell flew to Paris from Mannheim. Dr. Hoyt left with Agent Beatson in jeep for Weisbaden and northern targets for conference with other metallurgists.

aaa. 4 June 1945: Lt. Fiebig, Lt. Waclo returned Mr. Sarapau to Stuttgart area where he had been initially found. Capt. Cromartie, Major Barnes, and driver DeSisto left for Weisbaden to obtain T Force passes, and check on target material. Lt. Col. Melton, Majors Rasmussen, Howe, and Hitchcock, with driver Reynolds went to SHAEF at Frankfurt to check on various targets and documents at T Sub-Division. Lt. Fiebig and Lt. Waclo returned from Stuttgart area and Capt. Cromartie and Major Barnes returned from Weisbaden.

bbb. 5 June 1945: Lt. Col. Ham returned via plane from Paris. Paris had previously advised that no action should be taken re Bothe until Ham arrived.

ccc. 6 June 1945: Lt. Fiebig, Capt. Cromartie, Major Barnes, and driver Makar left in jeep for Pottenstein in Nurnberg area. Dr. Wannier, Lt. Edell, and driver Colon arrived from Paris enroute to Göttingen and northern areas.

ddd. 7 June 1945: Lt. Col. Ham with driver DeSisto left for Frankfurt and Weisbaden to contact T Sections. Lt. Col. Melton, Majors Rasmussen, Howe, Hitchcock, and driver Reynolds returned from conference with SHAEF. Drivers Hansen and Linton left for Paris with two C&R's, from Göttingen. Lt. Col. Ham contacted T Sub-Division SHAEF, T Branch 12th AG and CIC 12th AG.

eee. 8 June 1945: Dr. Wannier, Lt. Edell, and driver Colon left for Weisbaden and Göttingen, to exploit targets in Wrist, Germany, and Holland. Lt. Cerame, with drivers Hansen and Linton left for Paris. Lt. Col. Ham and driver DeSisto returned from Frankfurt. Lt. Fiebig, Capt. Cromartie, Major Barnes, and Sgt. Brown left for Göttingen and northern targets.

fff. 9 June 1945: Agent Previti with driver Jannings went

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Also Russian General Council

to Weisbaden to discuss CIC procedures. Lt. Col. Melton, Major Howe, S/Sgt Schwab, and driver Reynolds went to SHAEF at Frankfurt to copy certain target information. Dr. Smyth and driver Martin arrived from Göttingen enroute to target at Berchtesgarden. Sgt. Wooley and driver Glover returned from Munich. Arrangements made to pick up Bothe after SHAEF authorization, but after checking at his house, it was determined that he was confined by CIC in local jail for political and security matters. Information relayed to Paris headquarters for action of Major Furman.

ggg. 10 June 1945: Driver Martin returned to Göttingen as courier. Lt. Col. Melton, Majors Rasmussen, Howe, Hitchcock, and driver Reynolds went to Munich to exploit targets in that area. Sgt. Wooley and driver Colon returned to Munich, Wooley to work with the social-political group. Dr. Smyth, Lt. Weimer, and driver Bennett left for Munich and T-Force to contact Dr. Stetter's group.

hhh. 11 June 1945: Capt. Augustine obtained from CIC headquarters, Heidelberg, a report covering physical condition and political activities of Bothe. Action on Bothe was suspended upon receipt of cable instructions from Paris. Paris was also informed that Dr. Krauch had returned, and decision made he was no longer of interest to us, and no need to interrogate. CIC was advised of his return and information Alsos had on him.

iii. 12 June 1945: Lt. Col. Ham and driver DeSisto drove to Frankfurt, contacting T-Sub-Division; then continuing on to Göttingen. Munich jeep which was evacuated by error with T Force from Munich to Heidelberg was recovered. F/Lt. Higman, drivers Hansen and Linton enroute from Paris to Göttingen. Lt. Col. Lattin, Headquarters ETOUSA, Dr. Brode, and driver arrived from Paris, enroute to Weisbaden and Munich.

jjj. 13 June 1945: Lt. Col. Ham conferred with Northern Base at Göttingen re current and future plans. F/Lt. Higman, drivers Hansen and Linton departed for Göttingen. Dr. Brode, Lt. Col. Lattin, and driver left for Weisbaden. Major Barnes, Capt. Cromartie, Lt. Fiebig, and driver Brown returned from 21st Army Group and Frankfurt. Col. Bogart, Mr. Ebert, Mr. Kemper, and driver Bryan returned to Heidelberg from Braunschweig, and Göttingen.

kkk. 14 June 1945: Lt. Col. Ham and Major Blake went to Headquarters 21st Army Group, Bad Oeynhausen, and contacted Brigadier Pennycook, Chief, G (T) & C.W. re future Alsos operations. Paris headquarters requested clearance for Capt. Cromartie, and Major Barnes to interview person at Ashcan. Lt. Col. Rothwell, Mr. Stratton, Mr.

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Alsos Mission
General
General

Kliefoth arrived at Y-89 in C-47 with jeep, picked up driver Makar, and then flew to Bayreuth on VT project, after first stopping at Weisbaden to obtain T Section clearances. Lt. Cerame arrived via same plane from Paris.

111. 15 June 1945: Lt. Cerame departed by jeep for Munich to operate with social-political group in French area. Dr. Hoyt and Agent Beatson arrived from Göttingen. Col. Bogert and Mr. Ebert left by plane for Paris for conference with scientific chief. Lt. Col. Ham and driver DeSisto went from Göttingen to Frankfurt, contacted T Sub-Division, and then returned to Heidelberg. Dr. Smyth, Lt. Weimer and driver Bennett arrived from Salzburg area after interviewing Dr. Stetter's group.

mmm. 16 June 1945: Lt. Col. Ham, and driver DeSisto went to Munich headquarters to contact Headquarters 3rd Army and Headquarters 7th Army. Dr. Wannier, Lt. Edell, and driver Colon arrived from Göttingen, after completing mission at Wrist and Baltic points.

nnn. 17 June 1945: Major Barnes, Capt. Cromartie and driver Uhlig left for Bad Oeynhausen to cover BW targets in 21st Army Group. Dr. Wannier drove to Frankfurt, and then went by plane to Paris. Col. Bogert arrived from Paris by plane to Frankfurt. Lt. Col. Ham went to Headquarters 3rd Army Intelligence Center at Freising, contacting the G-2 and T Sections.

ooo. 18 June 1945: Major Hitchcock with driver Chandler went from Munich to Frankfurt and then to Heidelberg. Dr. Baumann with driver Bowker arrived from Göttingen. Lt. Col. Ham with driver DeSisto went from Munich to Augsberg, contacted Headquarters 7th Army, G-2, and T Section. Col. Shaw, Dr. Pierce, Mr. Richter, and driver O'Connor arrived by C&R, from Paris to exploit censorship targets in Germany. Decision on Bothe sent from Paris.

ppp. 19 June 1945: Driver Makar went to Frankfurt to drive Lt. Col. Rothwell to targets. Col. Shaw, Lt. Edell, Dr. Pierce, Mr. Richter, with drivers O'Connor and DeSisto went to Weisbaden and Frankfurt for clearances for trip. Mr. Ebert went by plane to Paris. Driver Bowker returned as courier to Göttingen. Dr. Brode, Lt. Col. Lattin and driver returned to Heidelberg from Munich. Lt. Weimer, and Agent Previti went to Headquarters 1st French Army, Lindau, to obtain clearances for various groups for French area.

2. On 20 June 1945, Lt. Col. Ham returned to Paris, upon instructions from the Chief of Mission. Capt. R. C. Augustine, A.C. assumed

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the duties of Officer in Charge, Southern Advance Base, Heidelberg.

R. C. HAM
Lt. Col., Infantry
Officer in Charge

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BY NARS, Date

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"Progress Reports - ALSOS Mission"

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BW for Commendation file

HEADQUARTERS
EUROPEAN THEATER OF OPERATIONS
UNITED STATES ARMY
Alsos Mission

Office of A C of S G-2
European Theater of Operations
United States Army

To:

Col Eckman
Well! Here it is.
The fact is in
the file.
BL

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29 APR 1945
ALSOS
MISSION

MISSION

Alsos
Mt

June 1945

.I.E., D.S.O., A.F.C.

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File ..... 107 .....
Date .....

destination involved herein.

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BW for commendation file

HEADQUARTERS
EUROPEAN THEATER OF OPERATIONS
UNITED STATES ARMY
Alsos Mission
APO 887

11 June 1945

Air Marshall Sir N. H. Bottomley, K.C.B., C.I.E., D.S.O., A.F.C.
Air Ministry
Whitehall, S.W. 1
London, England

My dear Air Marshall:

On behalf of the Chief of Mission, Colonel Boris T. Pash, GSC, and all members of this organization, it is desired to express our appreciation for your kind letter addressed to our Scientific Chief, Dr. S. A. Goudsmit, dated 8 June 1945. Only with the high degree of cooperation afforded us by our British colleagues, were we able to accomplish the coverage of the Biolcgical Warfare investigative field in an efficient manner. In fact, the British officers attached to Alsos entered very thoroughly into the spirit of cooperation and high accomplishment characteristic of this Mission.

Again thanking you, I am

Very truly yours

GEORGE R. ECKMAN
Lt. Colonel, MI

ALSOS MISSION
Initials .....
File ..... 107 .....
Date .....

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WAR DEPARTMENT
The Adjutant General's Office
Washington 25, D. C.

AG 230.42 (26 Jan 45) OB-S-B Hak - 2B-939 Pentagon

27 January 1945.

6 Aug '45

PASSED BY BASE 1597 ARMY EXAMINER

SUBJECT: Invitational Travel Orders, Shipment IJ-158-ZG.

TO: The Commanding General,
Air Transport Command;
The Chief of Transportation,
Army Service Forces.

1. The following named Expert Consultants, Office of Scientific Research and Development, are hereby authorized and invited to proceed by air, on or about 1 February 1945, from Washington, D. C. to IJ-111, reporting upon arrival to the Military Attache on temporary duty for a period of approximately seven (7) days, thence to IJ-158 reporting thereat to the Commanding General, United States Army Forces on temporary duty and to such other places within that theater as may be directed by the theater commander, and upon completion of this temporary duty to return to Washington, D. C. UST-2-1706-USG:

Dr. James A. Lane
Dr. T. R. Hogness

2. Prior to departure from the continental United States, they will be required to have completed the prescribed immunizations in conformity with current War Department instructions.

3. Regulations governing the procurement of military clothing and equipment in the United States are published in SectionI, Circular 399, WD, 1944. The personnel involved in this movement are in Group 6. A uniform is required by the theater commander.

4. Travel by military, naval or commercial aircraft is directed as necessary in the military service for the accomplishment of an emergency war mission and is chargeable to FD-210/50141 508-2401 P 110-0203.

5. Baggage to accompany each individual will be marked with the owner's full name, will be limited to ninety-five (95) pounds, and will accompany the individual to the port of aerial embarkation. Baggage will not be marked so as to disclose the overseas destination.

6. In the interests of security there should be no discussion with unauthorized persons of the overseas destination involved herein.

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7. They are authorized to carry cameras, film and equipment and, subject to the restrictions of the theater commander, to take such photographs as may be of interest to the War Department.

8. The Commanding General, Air Transport Command, and the Chief of Transportation, Army Service Forces, will each furnish the transportation for which he is responsible and coordinate with all concerned.

9. The personnel involved in this movement may be communicated with c/o Captain Travis, Military Intelligence Division, War Department, Washington, D. C., telephone REpublic 6700, extension 72468.

By order of the Secretary of War:

/s/ Donald M. Davis

Adjutant General

COPIES FURNISHED:
Destination Commander (8);
CO, Port of Aerial Embarkation, Washington, D. C. (2);
A. C. of S., OPD, WDGS (1);
Director, Army Postal Service, AGO (2);
Each Individual, THRU: Capt. Travis (10);
Capt. Travis, MID (2);
Dr. Delo, OSRD (1);
Mobilization Division, Movements Branch, ASF (Attn: Major Bailey) (1).

A TRUE COPY:
Robert Ball, 1st Lt, Inf

ROBERT BALL
1st Lt, INF

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Office for Emergency Management

OFFICE OF SCIENTIFIC RESEARCH AND DEVELOPMENT

1530 P Street NW

Washington, D. C.

Vannevar Bush
Director

September 12, 1945

Major General Clayton Bissell
A. C. of S., G-2
Military Intelligence Division
War Department General Staff
War Department
Washington 25, D. C.

Dear General Bissell:

Upon my return to Washington I found the enclosed letter from Dr. Goudsmit commending the outstanding performance of Col. B. T. Pash as Military Chief of the Alsos Mission. From my knowledge of Colonel Pash's performance I can add my commendation of his work. He and Dr. Goudsmit made a splendid partnership which was ideally suited for the kind of assignment which was given them.

I am delighted to learn that Colonel Pash's achievements have been recognized by the award of the "Legion of Merit". The award is indeed well deserved and I am sure that Dr. Goudsmit will be glad to learn of this recognition of the splendid work performed by Colonel Pash.

Cordially yours,

V. Bush,
Director.

A TRUE COPY:

Robert Ball

ROBERT BALL
1st Lt, Inf

CONFIDENTIAL

Also Mission
General
General

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THIS DOCUMENT CONSISTS OF 1 PAGES
COPY NO. 2 2 SERIES A

Major General L. R. Groves
Major F. J. Smith

5 April 1945

Possible Recovery of Oolan Material last Reported to be at Stassfurt, Germany.

1. The Oolan material comprising about 1000 tons of U oxide was last reported in Stassfurt. It seems apparent that either the 21st Army Group under Field Marshall Montgomery or the 12th Army Group under General Bradley will occupy this area before the cessation of hostilities.

2. Stassfurt is within the area already designated as a Russian zone of occupation but it is assumed that the Russians will not take the area until such time as a surrender takes place or the Allied Control Commission assumes its duties of governing Germany.

3. If the above is true Major Calvert and Major Furman should be instructed as follows:

a. Make efforts to recover the material if American or British armies occupy the area before the Russians enter or hostilities are terminated.

b. Contact General B. Smith to determine the probable date of arrival of western armies in Stassfurt; and the possibilities of moving such a large amount before hostilities are terminated.

c. Make the necessary investigations behind the lines of the American and British armies.

d. Interrogate Bothe and any other P/Ws who might know of German stock of material.

e. Discuss situation with Sir Charles Hambro and work out means of getting British help to move the material to a safe area, probably Britain.

4. The above must be carried out without -

a. Contacting any Belgian interest;

b. Compromising American interest with Russians.

5. The action in paragraph 3 by no means alters the present policy as laid down in our cables of 3 February and 10 March. This matter must be handled properly and with the greatest of care as indicated in paragraph 4. In view of the proposed policies of the European Advisory Commission concerning interchange of information, any mishandling of this situation may affect adversely American and British rights in Russian areas after the occupying powers have taken over their respective zones.

~~TOP SECRET~~

SMITH

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E.O. 11652, Sec. 3(E) and 5(D) or (E)
Authority NND 750112
By cd/sr NARS, Date 18 FEB 1976

2 Cables attchd.

SC-5 25M 9/43

This Document Consists of 1 Page
No. 1 of 3 Copies, Series A

THE BRITISH SUPPLY COUNCIL IN NORTH AMERICA

File - Manhattan Project

TELEPHONE EXECUTIVE 2020

BOX 680
BENJAMIN FRANKLIN STATION
WASHINGTON 4, D. C.

May 3rd, 1945

Groves

~~TOP SECRET~~

Dear General Groves,

I have just received the enclosed cable from Mr. Perrin for Sir Charles Hambro. As Sir Charles has not yet arrived, I feel you may like to see it without delay with a view either to replying immediately or to discussing it with Sir Charles on his arrival.

Yours sincerely,

J.F. Jackson

J.F. Jackson

Major General L.R. Groves,
Room 5120, New War Department,
21st & Virginia Ave.,
Washington, D.C.

TS Cable 77060
sent to Cabinet from
Groves, 4 May '45.

DECLASSIFIED
~~E.O. 11652, Sec. 3(E) and 5(D) or (E)~~
Authority NND 760135
By CD/SR NARS, Date 18 FEB 1976

Encl. No.
Encl. Under Cover Comm.

General
General

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of 1 Copies, Series B

3rd May, 1945

Cable from Perrin for Hambro

1. Contrary to expectations it appears that Wismar is in British hands. The stock of 80 tons of sodium salt held by Hoffman and Molzen there is the largest single quantity remaining in Germany.

2. In view of this and despite agreement not to collect more material would be grateful if you could discuss with Groves and let us know whether attempt should be made to get material away or destroy it by, for instance, dumping in river, or whether no action should be taken.

DECLASSIFIED
By PN NND 760135 NARS, Date 4/13/76

To: War Cabinet Offices

From: Joint Staff Mission

Washington, D.C.

May 3rd, 1945

~~TOP SECRET~~

IMMEDIATE

WEP 397

Following for Perrin from Jackson. Reference PEW 372.

1. As Hambro has not yet arrived, I have ~~consulted~~ consulted Groves and Chadwick who suggest that every attempt be made to remove the material from Germany at the earliest possible moment. Dumping the material would presumably have the serious disadvantage that it would leave evidence for some time.

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E.O. NND 760135
By DR NARS, Date 4/13/76

TOP SECRET

DECLASSIFIED
E.O. 11652, Sec. 3(E) and 5(D) or (E)
Authority NND 750112
By CD/sa NARS, Date 18 FEB 1976

VISIT TO WISMAR.

TARGET TEAM.

Major H.K. Calvert, C.M. U.S. Army.
Major D.C.G.Gattiker. British Army.

OBJECTIVE.

It was known from examination of the books of the Union Miniere in Oolen in September 1944 (reference report entitled 'Report of the Oolen Investigation' by Major R.R. Furman and Major H.K. Calvert), that in 1943 81 tons of crude sodium uranate had been shipped to the firm of Hoffmann & Molzen addressed to them at Station Goldberg Steestadt - Wismar. The target was visited with the object of discovering whether the material still existed, and if so, its location, with a view to its removal, or in certain circumstances, its destruction.

AUTHORISATION.

Authority for the visit was received from General Groves and Sir Charles Hambro on 4th May 1945.

CLEARANCE.

Clearance for the visit was obtained from General Strong, G2 Shaef, at Rheims, on 4th May, who cabled clearance instructions to 21st Army Group H.Q.

TACTICAL SITUATION.

Wismar, which was in the British sector, had been occupied on about 1st May. According to General Strong, the town would remain in British hands for at least a week. The demarcation zone between the British and Russian lines was about 3 miles east of the town on a line running due south, a few miles east of the Wismar-Schwerin-Ludwigslust road.

DETAILS OF OUTWARD JOURNEY.

The original plan was to leave Rheims at dawn on 5th May by air for Gottingen to pick up road transport from Alsos Mission H.Q.

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The Director stated that the material was held on behalf of Roges and that there had been no deliveries of uranium salts from his warehouse. He was further convinced that the stocks shown in the books were still in the warehouse unless it had been destroyed in the most recent fighting. He gave the name of the responsible official in charge of the warehouse as Dr. Elflein.

VISIT TO THE TOWN OF NEUSTADT-GLEWE.

From the maps available to the party it was impossible to determine by map refer nce as to whether Neustadt-Glewe lay in the British or Russian zone, as it obviously lay very close to the line of demarcation and it might even have been in the mile wide 'neutral' zone between the two lines. Accordingly it was decided to proceed by the main road through Schwerin to Ludwigslust, and from there to proceed towards the town to determine its exact location in respect to the lines of demarcation.

However, after passing through the town of Schwerin the party found itself in Russian occupied territory, having followed a U.S. military convoy consisting of two lorries containing U.S. enlisted men preceeded by a U.S. Lieutenant in a jeep who, it was subsequently discovered, had lost their way. At one point the party was interrogated by a Russian Major who demanded an explanation for the convoy passing through Russian territory, but after some considerable difficulty was allowed to pass on its way on condition it took the shortest route back to U.S. territory. By coincidence, this route took the party through the town of Neustadt-Glewe. The prominent factory premises of the Norddeutscher Lederwerk were easily discernible from the road, but the party, on the grounds of security, desisted from the temptation to leave the convoy to make a closer examination. The party, however, established the facts that the town itself lay about two miles ~~wide~~ inside the Russian zone, and was occupied, though only lightly, by the Russian Army, and that the factory had not suffered any damage in the fighting.

RETURN OF THE PARTY.

After cabling home for instructions the party waited two days in Luneburg. On receipt of these, the party returned to London by air on 1st May, having taken no further action.

Major R.C.G. Gattiker. British Army. Major H.K. Calvert. U.S. Army.

Also Mission General General

Owing to bad flying conditions, at the last moment this plan had to be abandoned, and the party had to proceed by jeep, reaching Gottingen at mid-day on 6th May. There additional transport was obtained and the party entered the target town at mid-day on 7th May, after obtaining clearances from 21st Army Group Forward and 2nd Army H.Q. at Luneburg.

INTERROGATION OF FIRM OF HOFFMAN & HOLZEN.

The interrogation was somewhat complicated by the fact that the Acting Director of the firm was ill in bed and had to be carried to his office.

The business of the firm was that of shipping agents and had only been formed since the beginning of the war. They dealt with a large variety of commodities, including foodstuffs.

With the exception of a small wooden shed at the harbour, they had no storage space in Wismar, their only warehouse having been at Goldberg some 30 miles S.E. of Wismar. A few months previously however this warehouse had been required as a factory premises by I.G. Farben, and accordingly the firm had transferred their stocks to a warehouse belonging to the Nordleutscher Lederwerk in the town of Neustadt-Glewe about 4 miles N.E. of Ludwigslust.

According to the stock sheets, the only stocks at the warehouse were copper, antimony and uranium compounds. There were two parcels of uranium compounds, one of 81 tons of sodium uranate which had been there since 22nd May 1943, and which was obviously the material in quest, and another parcel of 52 tons described as uranium oxide, which the Director explained had been sent there in September 1944 from the Chemische Fabrik Grunau in Berlin for safety from bombing. It is significant that this last-named parcel represents almost exactly the same tonnage as the parcel of sodium uranate, which, according to the books of the Union Miniere (reference report entitled 'Report of the Colen Investigation' by Major R.E. Furman and Major H.K. Calvert) was delivered to Chemische Fabrik Grunau in January 1943. It appears therefore very probable that it represents the same material, in which case the greater proportion of the stocks of Chemische Fabrik Grunau are accounted for.

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TOP SECRET

STANDARD FORM NO. 64

Office Memorandum · UNITED STATES GOVERNMENT

THIS DOCUMENT CONSISTS OF 1 PAGE(S)
NO. 2 OF 3 COPIES SERIES A

TO : Major General L. R. Groves

DATE: 9 May 1945

FROM : Captain A. E. Britt

SUBJECT: Captured Material

The following material in the amounts as indicated below, has been captured in the European Theatre of Operations:-

1108 tons - in the form of oxide, sodium uranite, and other unidentified compounds of Uranium

1½1 tons - Sodium salt and oxide not yet under our control

4½ tons - Metal

31½ tons - Heavy water

Further details on the above are indicated on the attached work sheet.

Incl.
Work sheet

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Authority NND 750112
By CD/SR NARS, Date 18 FEB 1976

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Also Mission General General

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AMERICAN EMBASSY
Office of the Military Attache
London, England

Paris Office
11 May 1945

Subject: Transmittal of Report.

To : Lt. Colonel John Lansdale, Jr., Room 5119, New War Department Building, Washington, D. C.

1. Transmitted herewith is memorandum to the Chief of Mission from Major J. C. Bullock, dated 9 May 1945, subject: Target: "Wirtschaftliche Forschungesellschaft" (WIFO).

2. Two (2) copies of the above memorandum are attached. One (1) copy of the memorandum is being forwarded to Major Calvert in London.

R. R. FURMAN, (Enc.)
Major, CE.

Incl:
Memorandum as above (in dup)

cc: Major Calvert - London

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Authority NND 750112
By CD/S.2 NARS, Date 18 FEB 1976

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HEADQUARTERS
EUROPEAN THEATER OF OPERATIONS
UNITED STATES ARMY
ALSOS MISSION
APO 887

9 May 1945

Memorandum for the Chief of Mission:

Subject: Target "Wirtschaftliche Forschungesellschaft" (WIFO).

1. Target Information: The Wirtschaftliche Forschungesellschaft (WIFO) plant is located on the outskirts of Leopoldshall, near Stassfurt, Germany. The area was in the 83rd Infantry Division Sector, XIX Corps, 9th Army, 12th Army Group. The task assigned was the location and removal of a large amount of special material stored at this plant.

2. Target Team: Major J. C. Bullock, 2nd Lt. W. L. Warner and 2nd Lt. D. E. Weimar were assigned by the Chief of Mission as the ALSOS team for the exploitation. Lt. Colonel John Lansdale, Jr., and Major H. K. Calvert, U. S. Army, and Colonel Sir Charles Hambro, British Army, represented the requesting agencies.

3. Exploitation: The necessary clearances were arranged for by the Chief of Mission with the ACofS, G-2, 12th Army Group. The target was captured and exploitation was authorized on 17 April 1945. Search of the records and interrogation of the Director disclosed that the material of interest was stored above ground in four areas in the immediate vicinity of the plant. The material was packed in barrels and was stored in sheds. The barrels had been exposed to the weather and approximately 25 percent were weakened so that they could not withstand the weight of the material. Arrangements were made with the Chief of Staff, 83rd Division, to place a guard of Military Police at the plant until the removal was completed.

The method of removal was discussed with the Corps officers and the representatives of the user agencies decided that the material should be moved by truck from the plant to the Hildesheim Air Strip where it would then be reshipped to destination. Lt. Colonel John Lansdale, Jr., arranged with the 9th Army to have two Quartermaster Truck Companies assigned to haul the material.

4. Removal of Material: Removal of material began on 20 April 1945 and was completed on 27 April 1945. Approximately seventy-five laborers were engaged to load trucks and repack damaged containers. These laborers were French and Italian displaced persons who had previously been assigned to the WIFO plant. The cost of the labor was paid by the Procurement Officer, XIX Corps. 260 truck loads of material were moved. Upon completion of the removal all traces of the material were obliterated and all broken barrels were removed to a rear area and burned. Fifteen barrels of records from the

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Subject: Target "Wirtschaftliche Forschungesellschaft" (WIFO).

administration building were removed to assure that no written record of the material would remain in the plant.

5. Quantities of Material Removed: Material from barrels broken in handling was packed in sacks for shipment to Hildesheim where it was repacked in barrels. Re-barreling of the material at the plant was not possible because of the importance of moving the material without delay.

A total of 3120 barrels and 2797 sacks of material was moved. Weights as stated on barrels were recorded and material as stated was classified. However, weights were not shown on approximately three hundred barrels and these barrels plus the entire shipment of sacked material has been computed on average weights to determine the approximate tonnage of material removed from the plant. A large number of barrels were not labelled and the material was classified by color in order to determine the approximate tonnage of each material removed. Material has been identified by the symbols shown on labelled barrels.

(All weights shown in kilograms)

Material: "SU" (Schedule A)

Number of barrels		2627
Number of sacks		2666
	Gross	Tare
Weight of material	909,058	100,631

Material: "TU" (Schedule B)

Number of barrels		71
	Gross	Tare
Weight of material	20,584	1142

Material: "UR" (Schedule C)

Number of barrels		132
Number of sacks		67
	Gross	Tare
Weight of material	44,241	3439

Material "UC" (Schedule D)

Number of barrels		97
Number of sacks		64
	Gross	Tare
Weight of material	36,445	2301

Subject: Target "Wirtschaftliche Forschungesellschaft" (WIFO).

(x) Material: "BOU" (Schedule E)

Number of barrels 49

	Gross	Tare
Weight of material	3645	291

(x) Material: Unknown (Schedule E)

Number of barrels 144

	Gross	Tare
Weight of material	7966	Unknown

(x) (This material was removed as it was stored with material of interest.)

Recapitulation:

Material	Barrels	Sacks	Weights- Gross	Tare
SU	2627	2666	909058	100631
FU	71		20584	1142
UR	132	67	4424l	3439
UC	97	64	36445	2301
BOU	49		3645	291
Unknown	144		7966	-
	3120	2797	1,021,939	107,804

The weights shown are computed amounts based on the best information available and do not represent actual weights.

J. C. Bullock

J. C. BULLOCK,
Major, CE.

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SU

Schedule A

No. of Barrels			No. of	Known Weights of Barrels	
Total	Unknown Weights Gross	Tare	Sacks	Gross	Tare
28	-	-	-	8158	624
261	33	34		69122	8269
180	6	7		54064	5611
306	77	83		71020	8318
118	20	21	271	30998	3503
84	8	8	690	21211	2855
179	29	32		42613	5390
158	13	12	80	40834	5443
118	9	13	461	29762	3929
6			6	40823	4791
238	11	11	205	67091	8404
184	11	10		49709	6340
207	37	36	178	56966	6322
94	3	4	400	27419	3303
97	12	10	320	24492	3246
169	13	18		43780	5641
70	9	15	55	21351	2006
2627	291	314	2666	699413	83995

Average gross weight per barrel 299 kg.
Average tare weight per barrel 36 kg.
Average weight per sack 46 kg.

291 barrels of unknown weight @ 299 kg. per barrel = 87,009

314 barrels of unknown weight @ 36 kg. per barrel = 11,304

2666 sacks of average weight @ 46 kg. per sack =122,636

	Gross	Tare
Known weight	699413	83995
Average weights	87009	11304
	786422	95299
Average weights (sacks)	122636	5332
	909058	100631

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FU

Schedule B

No. of Barrels			No. of Sacks	Known Weights of Barrels	
Total	Unknown Weights				
	Gross	Tare		Gross	Tare
32				8323.8	406.8
39	9	4		9650.8	671.7
71	9	4		17974.6	1078.5

Average weight of barrels 290.
Average tare of barrels 16.

	Gross	Tare
Known Weights	17974	1078
Averaged Weights	2610	64
	20584	1142

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UR

Schedule C

No. of Barrels			No. of	Known Weight of Barrels	
	Unknown Weights				
Total	Gross	Tare	Sacks	Gross	Tare
106				32571	2618
24			67	7462	640
2				590	47
132			67	40623	3305

	Gross	Tare
Average weight of sacks	54 kg.	
Average tare of sacks	2 kg.	
67 sacks at 54 kg.	3618	
Known weights of barrels	40,623	3305
Average weights of sacks	3,618	134
	44,241	3439

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UC

Schedule D

No. of Barrels			No. of	Known Weights of Barrels	
	Unknown Weights				
Total	Gross	Tare	Sacks	Gross	Tare
				26494	1683
76				5934	425
18		1	64	1008	65
3					
97		1	64	33437	2173

Average tare 25 kg.

Average weight of sacks 47 kg.

	Gross	Tare
Known weights	33437	2173
Average sacks	3008	128
	36445	2301

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Miscellaneous Schedule E

No. of Barrels			No. of	Known Weights of Barrels		Item
	Unknown Weights					
Total	Gross	Tare	Sacks	Gross	Tare	
49				3645.3	291.1	Bou
144		144		7966		Unknown
15	-	-	-	-	-	Papers
193		144		11,611.3	291.1	

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Mem. Rep

AMERICAN EMBASSY
OFFICE OF THE MILITARY ATTACHÉ
1, GROSVENOR SQUARE, W. 1
LONDON, ENGLAND

31 May 1945

Subject: Transmittal of Reports.

To : Major F. J. Smith, Room 5119, New War Dept. Bldg., Washington, D. C.

Transmitted herewith are reports of the Frankfurt, Hamburg, Joachimstal, and Wismar Missions forwarded for your information.

For the Military Attache:

H. K. CALVERT
Major, F.A.
Assistant to the Military Attache.

4 Incls:
As listed above (in dup)

Rept on Joachimstal w/d + given to Miss Elliott for her file.

Returned to our files 11 Oct 46 -

cc filed Gech. Rec.

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Authority NND 750112
By CO/SC NARS, Date 18 FEB 1976

General 1945

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VISIT TO HAMBURG.

TARGET TEAM.

Major H.K. Calvert, C.E. U.S. Army.

Major D.C.G. Gattiker. British Army.

OBJECTIVE.

The target was the firm of W. de Boer & Co. who, according to the books of the Wirteschaftliches Forschungsgesellschaft, had received 3½ tons of refined products (Preparat 38) in April 1940, and who had received, according to the books of the Union Miniere (reference report entitled 'Report on the Oolen Investigation' by Major R.R. Furman and Major H.K. Calvert) some 24 tons of refined products direct from Belgium in the years 1939-1944.

DATE OF VISIT - 8th MAY 1945.

INTERROGATION OF WILLIAM DE BOER (DIRECTOR).

The premises of the firm, whose earlier address was 9 Grosse Allee, were completely destroyed by bombing in July 1943. All records and most stocks were destroyed. Business has since been conducted from William de Boer's private residence at 36 Adolfstrasse.

The business of the firm was that of import and export merchants, and dealt mostly in ores and other chemicals. The firm was the principal distributor of uranium products to the ceramic industries. No manufacture was undertaken. None of the firm's warehouses remained in Hamburg. It owned only one warehouse now at Wittingen near Uelzen (some 50 miles south of Hamburg). Stocks of commodities were given as :-

18 tons quartz crystals.

1.1 tons refined uranium products.

and a few other miscellaneous products.

Examination of the books of the firm revealed the following salient facts of interest :-

(1) The majority of sales of uranium products had been small lots varying in size from 5 kgs. to 500 kgs. to genuine ceramic

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manufacturers. The products had been chiefly yellow sodium uranate, orange sodium uranate and black oxide.

(2) Sales were subject to licence from the Reichstelle Chemie in Berlin and were only granted for war uses, e.g. insulator manufacture or for the export trade.

(3) Only two firms made substantial purchases. In 1942 Krupps in Essen placed an order for 225 tons sodium uranate, but cancelled it in September 1943 after taking delivery of 18 tons. Stahlwerke Rochling-Buderus A.G. also placed a large order, but after taking delivery of about 1½ tons they subsequently cancelled further supplies about the same time. It was alleged that in both cases the material was required for steel hardening in place of wolfram. These deliveries, together with the numerous smaller deliveries to a large number of users, account for the greater part of this firm's known receipts.

(4) According to a letter from de Boer to Roges, Auergesellschaft informed de Boer at the beginning of 1944 that owing to severe bomb damage to their uranium warehouse, they could not meet a request from him for material. After referring the matter to Roges he was eventually supplied with one ton of sodium uranate from Chemische Fabrik Grunau. A further reference is made to this loss when in a letter to the Oberkommando der Wehrmacht (Raw Materials Section) de Boer suggested that in view of the loss of uranium stocks suffered by Roges in the warehouse of Auer & Co., a portion of remaining stocks should be sent for safety to de Boer's warehouse in Wittingen. This is significant because it would appear that stocks of material held by Auergesellschaft amounting, according to the books of Union Miniere and Wirteschaftliches Forschungsgesellschaft, to 62 tons refined products and 16 tons Preparat 38, were largely destroyed actually some time at the end of 1943 or the beginning of 1944. There are two references to the fact that this loss might mean a curtailment of supplies to the ceramic industry.

2-4 Bonn Pash
AIOS Mission General General 1945

(5) In November 1943, in response to a request from de Boer, presumably for yellow sodium uranate, Buchler & Co. at Brunswick informed the firm that they now only had 'raw uranium' from which they were making only ammonium uranate which they described as an intermediate product. They had a few thousand kilos of orange salt in stock however.

(6) De Boer wrote a letter to the Reichwirtschaftminister dated the 28th June 1943, suggesting that if uranium was to become as important as was believed, the possibility of extraction from the Swedish kolm should be examined. This correspondence culminates in a letter from the commercial attaché to the German Purchasing Mission in Sweden, forwarded by the Reichwirtschaftminister, saying that after making a considerable number of enquiries including an approach to the Geological Institute, it had been ascertained that the question had been examined in the past and present opinion is that it is not a commercial proposition. The question was also discussed apparently by de Boer with Professor Albers of the Vierjahresplaninstitut fur Organische Chemie in Danzig. Although the Reichwirtschaftminister in his final letter dated the 29th October 1943, said he did not consider the matter worth pursuing further, de Boer wrote in November 1943 to Svenska Skifferoljeverk, Orebro, the company working the oil shales in Sweden, asking whether there were any other minerals found from which the metal might be obtained, and asking for samples.

(7) There is a paper dated the 30th December 1942, giving an analysis of certain unspecified oil shales. The average U_3O_8 content is given as 0.058% and the conclusion is that the winning of U from this source is not a commercial possibility.

SUMMARY.

The firm of de Boer acted chiefly as a distributor of uranium compounds to the ceramic industries.

The principal known receipts of the firm amounting to ~ 30 tons are accounted for in deliveries, only two of which are exceptionally large.

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The stock remaining in the firm's warehouse is insignificant (1.1 tons).

The fact emerges that the whole stock of 78 tons refined products known to have been received by the Auergesellschaft between 1940 and 1942 appears to have been destroyed in the company's warehouse some time at the end of 1943, presumably somewhere in the vicinity of Berlin.

The origin of the German interest in the Swedish kolm deposits is disclosed.

Major D.C.G.Gattiker.
British Army.

Major H.K. Calvert, C.E.
U.S. Army.

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Germ. Rep.

8 June 1945

Subject: Transmittal of T A Reports.

To: Major Francis J. Smith, Room 5119, New War Dept. Bldg., Washington, D. C.

There are inclosed herewith copies in duplicate of two reports prepared by D. C. G. Gattiker, Subject:

"Visit To Stassfurt - 17 April 1945"

"Present Status And Location Of Basic Materials Known To Have Been Acquired By Germany During The War."

For the Military Attache:

H. K. CALVERT,
Major, F. A.,
Assistant to the Military Attache.

Inclosures - 4.

Orig. filed Secret TS Record D

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By CD/SR
18 FEB 1976

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Boris Pash
General
1945

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5 June 45

PRESENT STATUS AND LOCATION OF BASIC MATERIALS KNOWN TO HAVE BEEN ACQUIRED BY GERMANY DURING THE WAR.

INTRODUCTION.

This report presents an account of all materials known to have been acquired by Germany during the war years from France, Belgium and Czechoslovakia, and gives the status and location of the remaining material at the present time.

This account is based on information contained in the following reports:-

Report on Colen Investigation, by Major R.R. Furman and Major H.K. Calvert.

Visit to Stassfurt, by Major D.C.G.Gattiker.

Visit to Wismar, by Major D.C.G.Gattiker and Major H.K. Calvert.

Visit to Hamburg, by Major D.C.G.Gattiker and Major H.K. Calvert.

Visit to St.Joachimstal, by Major D.C.G.Gattiker and Captain G.Davis.

Visit to Radium Chemie, by Major D.C.G.Gattiker.

MATERIALS RECEIVED BY AND AVAILABLE TO GERMANY DURING THE WAR.

This is shown in Table I. It will be seen that the total quantity amounted to the equivalent of 962 tons oxide (U_3O_8) comprising crude sodium uranate (992 tons), various refined products (507 tons), ore concentrates and some ore residues. 90% of the material (calculated on equivalent oxide content) was of Belgian origin, and the remainder, apart from a negligible quantity of ore obtained from Schmiedeburg, was of Czechoslovakian origin.

STATUS AND PRESENT LOCATION OF ABOVE MATERIALS AT PRESENT DATE.

This is shown in Table II, which accounts for 99% of the material. The remainder unaccounted for represents material distributed in small quantities to various ceramic industries, most of which can be considered to have been consumed.

The material is divided into five categories, viz:-

1. Material in British or U.S. zones of occupation in Germany.

2. Material in Russian zones of occupation or in Russian spheres of influence.

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Box 3 Pash
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3. Material seized and removed by Britain and U.S.

4. Material believed to have been destroyed by bombing.

5. Material sought but not found.

The following comments apply:-

Cat.1. Material in British or U.S. Zones of Occupation in Germany.

The amount remaining is equivalent to 25 tons U_3O_8. It is possible that the 18 tons of refined products which were delivered to Krupps in 1943 have since been destroyed by bombing. On the other hand, it is possible that the stocks held by Buchler & Co. may be considerably greater than those shown, since the firm are known to have been engaged in the preparation of ammonium uranate, and at one time to have had stocks of orange sodium uranate. Both these products may have been made from ore as the starting point: on the other hand the firm may have received supplies of refined or semi-finished products from the Berlin area. These points can be checked in due course.

Cat.2. Material in Russian Zones of Occupation or in Russian Spheres of Influence.

The amount probably remaining appears to be of the order of 162 tons equivalent U_3O_8. Of this, however, 30 tons would have to be recovered from the St. Joachimstal concentration plant residues containing less than 1% U_3O_8. This recovery, though undoubtedly feasible, would not be readily accomplished.

On the other hand the figure of 162 tons remaining is based on the belief that all the known stocks of the Auergesellschaft were destroyed in a raid about the end of 1943. Certainly it appears that a large part were destroyed and the remainder, if any, may well have been destroyed at Oranienburg in March 1945, although the work was alleged to have been evacuated before the raid. This would not necessarily have meant that all the stocks had also been evacuated. On the assumption, however, that all the material concerned, even if 'destroyed', could ultimately be salvaged, the amount remaining in the zone would be increased by the equivalent of ~ 70 tons U_3O_8.

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Boris Pash

Also Mission General 1945

Again it must be borne in mind that the 24 tons equivalent U_3O_8 sought, but not found, at the works of the Deutsche Gold u Silberscheideanstalt may have found its way into this zone.

The minimum figure remaining in this zone is therefore (162 - 30) = 132 tons equivalent U_3O_8, and the maximum (162 + 70 + 24 - 10*) = 246 tons equivalent U_3O_8.

Cat.4. Material Believed Destroyed by Bombing.

See remarks under Category 2, paragraph 3.

Cat.5. Material Sought but not Found.

It is understood that the premises of the firm in Frankfurt were visited by an Alsos Mission party, but no stocks were found. It is possible that the great bulk of the stocks was consumed, but it is more likely that at any rate the stocks of crude uranate, which were known to be considered objectionable for metal manufacture on the grounds of impurities, have been evacuated possibly to Buchler & Co. or to the evacuation works of Auergesellschaft.

* A deduction of 10 tons is permissible to balance the 8 tons of compressed oxide blocks and 1½ tons of metal belonging to KWI für Physik which were seized and which almost certainly must have been made from some of the raw materials included in this figure.

SUMMARY.

Of the 962 tons equivalent U_3O_8 products available to Germany, 681 tons have been recovered and removed by British and U.S. Forces.

The amount remaining in the Russian zone or in Russian spheres of influence is probably 162 tons equivalent U_3O_8 (minimum 132 tons: maximum 246 tons).

Major D.C.G.Cattiker.
British Army.
5th June 1945.

Boris Pash

Alsos Mission General 1945

TABLE I.

BASIC MATERIALS KNOWN TO HAVE BEEN ACQUIRED BY GERMANY DURING THE WAR.

Country of Origin.	Crude Sodium Uranate ~50% U_3O_8.	Refined Products ~80% U_3O_8.	Ore Concentrates 60% U_3O_8.	Crude Ore 10% U_3O_8.	Residues. 1% U_3O_8.	Metal.	Total as equivalent U_3O_8.	Gra as U_3
Belgium.	992	458	-	-	-	-	862	
Czechoslovakia.	-	49	48	20	3000	-	100	
Germany.	-	-	0.5	-	-	-	0.25	
TOTAL	992	507	48.5	20	3000			

TABLE II.

STATUS AND LOCATION OF ABOVE MATERIALS (OR THEIR PRODUCTS) AT 1st JUNE 1945.

	Firm.	Town.	Crude Sodium Uranate ~50% U_3O_8.	Refined Products ~80% U_3O_8.	Ore Concentrates 60% U_3O_8.	Crude Ore 10% U_3O_8.	Residues 1% U_3O_8.	Metal.	Total as equivalent U_3O_8.	
Material and U.S. Occupation	W. de Boer & Co.	Wittingen.	-	1.1	-	-	-	-	1	
	Buchler & Co.	Brunswick.	1	-	15	-	-	-	9½	
	Krupps.	Essen.	-	18	-	-	-	-	14½	
Material zones of or eres e in ustria lovakia.	Norddeutsche Lederwerk.	Neustadt-Glewe.	-	133	-	-	-	-	106	
	Chem. Werk.	Treibach.	-	-	15	-	-	-	9	
	Mine works.	St. Joachimstal.	-	-	3	20	3000	-	33½	
	Hereswaffenamts.	Berlin.	-	11.5	-	-	-	-	9	
	K.W.I. für Physik.	Berlin.	-	-	-	-	-	3	3	
	Stahlwerk Röchling Buderus.	Finowfurt.	-	1.5	-	-	-	-	1	
Material removed and U.S.	Union Miniere.	Oolen.	91*	-	-	-	-	-	45	
	Wirtschaftliche Forschungs-gesellschaft.	Stassfurt.	864	233	-	-	-	-	618	
	Radium Chemie.	Frankfurt a/M.	11	-	0.5	-	-	-	6	
	Riedel u Hahn.	Hannover.	-	6	-	-	-	-	5	
	K.W.I. für Physik.	Stadtilm.	-	8	-	-	-	-	6	
	-ditto-	Haigerloch.	-	-	-	-	-	1.5	1½	
Material destroyed 12.43	Auergesellschaft.	Berlin.	-	78	15	-	-	-	71½	
Material not	Deutsche Gold u Silberscheid-eanstalt.	Frankfurt a/M.	25	0(14)*	-	-	-	-	12(24)	
		TOTAL	992	490	48.5	20	3000	4.5		

X Actually the equivalent in refined products was seized.

* It is convenient here to assume that the whole of the 14 tons of refined products held by this firm were used for making the 8 tons of compressed oxide blocks and 4½ tons metals known to have been made for K.W.I. fur Physik.

WAR.

U_3O_8.	Residues. 1% U_3O_8.	Metal.	Total as equivalent U_3O_8.	Grand Total as equivalent U_3O_8.
	-	-	862	
	3000	-	100	962
	-	-	0.25	
	3000			

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U_3O_8.	Residues 1% u_3O_8.	Metal.	Total as equivalent U_3O_8.	GrandTotal as equivalent U_3O_8.
	-	-	1	
	-	-	9½	25
	-	-	14½	
	-	-	106	
	-	-	9	
	3000	-	33½	162
	-	-	9	
	-	3	3	
	-	-	1	
	-	-	45	
	-	-	618	
	-	-	6	681
	-	-	5	
	-	-	6	
	-	1.5	1½	
	-	-	71½	71
	-	-	12(24)	12(24)
	3000	4.5		951

held by this firm were used
been made for K.W.I. fur Physik.

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By RH NARS, Date 4/10/76

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HEADQUARTERS
U. S. FORCES, EUROPEAN THEATER
ALSOS MISSION, G-2

Rear - APO 887
6 September 1945

MEMORANDUM:

TO : George . Eckman
Lt. Colonel, MI
Deputy Chief of Mission

1. Will you please transmit to Major Calvert the following TA information:

a. The interrogation of Dr. Ihwe of the Auergesellschaft has yielded the following results:

(1) As mentioned in a previous communication, Dr. Riehl who did the actual work on metal production has gone to Moscow. Riehl was the one who had direct contact with Heisenberg and others.

(2) The uranium in Germany was almost exclusively obtained from Belgian stocks. It was Director van Stappen who informed Ihwe where the stocks could be found. Ihwe was not connected with the search for uranium in France. That was probably taken care of by "Roges" as reported in early Alsos reports. The present whereabouts of German uranium stocks were not known to Ihwe actually. Ihwe claims that about 30 tons, probably oxide, were taken to Russia from the Auer Company. Another 20 tons belonging to the Army were stored in Landsberg and were removed to Russia. An unknown large quantity belonging to "Ro es" (Dr. Paust) was stored near Stassfurt. Another 100 tons were stored in a chemical factory at Goldbeck near Lubeck. The supply was still there in January 1945. About 20 tons are supposed to be stored in a quinine factory at Buedler near Brunswick. Dr. Smyth who visited this place several months ago reported that the director had informed him of the presence of a few tons of this ore. Finally, about 60 tons of thorium compounds were removed from STR in France. The estimated yield of Joachimstahl, according to Ihwe, was about 3 grams of radium per year, or about 10 tons of uranium. In addition, as reported before, Heil's secretary, Miss Globel, told us that a small amount of metallic uranium had been removed by the Russians from Oranienburg.

S. A. GOUDSMIT
Scientific Chief

DECLASSIFIED
E.O. 11652, Sec. 3(E) and 5(D) or (E)
Authority NND 750112
By PN NARS, Date 4/13/76

Box 4 Bonn Push
General 1945

~~SECRET~~

WAR DEPARTMENT
Military Intelligence Mission
Washington, D.C.

January 31, 1945

To: Major Frank Smith

From: S. A. Goudsmit

Subject: ALSOS Operation on TA-Project.

From experience gained so far the Scientific Chief of the ALSOS Mission advises to adhere to the following program regarding operations for the TA-Project.

1. All operations are decided upon by the Military Chief and the Scientific Chief. The final decision regarding the execution of an operation rests with the Military Chief, the final decision regarding its planning with the Scientific Chief.

The Scientific Chief reserves the right to postpone operations requested by the Washington or London offices if in his opinion the available personnel is needed elsewhere.

2. The present plan calls primarily for the investigation of German University laboratories other Government research institutions and a few industrial laboratories, when they become available.

3. Priorities of the targets are assigned according to the intelligence gathered so far, especially at Strasbourg. A target priority list is being prepared now.

4. An investigating trip to Switzerland is considered of low priority and should be undertaken only if enough competent personnel is available to cover high priority targets, or if there is a reasonable certainty that these targets will not become available for a long time. Present experience indicates that documentary information is many times more valuable than hear say or information obtained through personal channels.

S. A. Goudsmit
Scientific Chief
ALSOS Mission

~~SECRET~~

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Authority NND 750112
By CD/SC NARS, Date 2 5 [illegible] 1970

SECRET

AMERICAN EMBASSY
Office of the Military Attache
London, England.

Paris Office
27 February 1945

Subject: Hechingen Area.

To : Major General L. R. Groves. (Attention: Major Francis J. Smith).

1. Details of the desired plan for investigation in the Hechingen area were discussed at a recent meeting of the Combined Intelligence Committee in London at which Lt. Colonel Pash was present. As a result Colonel Pash has recently visited the Sixth Army Group Headquarters and obtained from General Devers, Commanding General, the general operational plan for the area in which we are interested. While no details are known at the present time the General has indicated that the requirements of this office can be met with little diversion from their proposed plan of operation and has directed his G-3 to consider the objectives of this office. Colonel Pash will keep in constant consultation with the Group Headquarters until the plan is placed in effect.

2. It is planned to keep you informed as currently as possible of the planning and proposed operation. At present only the appropriate headquarters have been visited. General W. B. Smith, Chief of Staff, SHAEF, has not been contacted as yet because it may not be necessary to renew this tie, General Devers having taken action. General Betz who would be the normal contact, is to be hospitalized somewhere in the East for some weeks. If it becomes necessary to be backed up in this operation the undersigned will wire. The attached draft of a letter from the Chief of Staff or Office of the Secretary of War will suffice if carried directly to General Smith. It is not at present required.

3r. 7001

R. R. FURMAN,
Major,
Corps of Engineers.

1 Incl:
Draft of Memo

C/c destroyed
7/21/48 DDP

3r. 7001

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SECRET

SAVE

~~TOP SECRET~~

WAR DEPARTMENT
P. O. BOX 2610
WASHINGTON, D. C.

FOR VICTORY BUY UNITED STATES WAR BONDS AND STAMPS

REFER TO FILE No. _____

THIS DOCUMENT CONSISTS OF 1 PAGES
COPY NO. 1 OF 2 SERIES A

6 March 1945

Memorandum to General Groves

Subject: AUERGESELLSCHAFT

AUERGESELLSCHAFT is a German corporation located at Oranienburg (co-ordinates 13° 16' 0" E - 52° 45' 0" N), a town about fifteen (15) miles north of Berlin, Germany. AUER is engaged in the manufacture of pure thorium metal and uranium metal to be used for the production of nuclear energy and the manufacture of an atomic bomb.

There are full reports entitled "New Notes on German Chemical Warfare" dated May 1943 in the British War Office, London.

Oranienburg is within the area designated as the Russian sphere of occupation.

copy # 2 destroyed

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Authority NND 730039
By Ehe NARS, Date 6/5/74
NND

~~TOP SECRET~~

(1)

WAR DEPARTMENT
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INCOMING CLASSIFIED MESSAGE

~~TOP SECRET~~ TOT

PRIORITY

FOP
SECRET

From: Headquarters Communications Zone European Theater of Operations US Army Paris France

To; War Department

Nr: E 20255 13 March 1945

TOP SECRET. Loco personal to Groves from Smith signed Eisenhower E 20255

Visited Salem and Jersey and Troy. Reception by Salem was excellent and he was delighted to undertake the contract which he guarantees will be carried through to full satisfaction.

Due to smallness of Gary, however, the work must be done by sight without aid of instruments and it is hoped that job can be totally completed by time of my return to States.

Butte or Utica were not discussed, because some study is necessary first. But assurances were given that sufficient materials will be at hand to definitely terminate the job on time.

Oddly neither Utah nor Ohio made any difference. They did not apply. Due to manner in which the work must be done rapid termination of contract depends on the weather which is reported as being favorable.

In any event it will be completed as soon as posible. Giles will be notified by mere statement that job is finished. Will try to visit Macon, March 14th. End

ACTION: Gen Groves

CM-IN-14240 (14 Mar 45) DTG 131912Z rel

~~TOP SECRET~~

(7)

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NND BY Epc NARS, Date 6/5/74

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24-75724

Box 3 Pash

General Gen 1945

WAR DEPARTMENT
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~~SECRET~~

PRIORITY

From: US Military Attache, London, England

To: War Department

No: 24529 15 March 1945

Signed Tindall to MILID sr nr 24529 LOCO personal to Groves from Smith.

Contacted Macoon today, which completes job satisfactorily. Will return to Paris tomorrow and leave for states on Sunday 18 March. Rector has departed.

End

ACTION: Gen Groves

CM-IN-16000 (15 Mar 45) DTG 151652Z bjm

~~SECRET~~

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NND BY Ekc NARS, Date 6/5/74

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THIS DOCUMENT CONSISTS OF 1 PAGES
COPY NO 1 OF 1 SERIES A

Spaatz disagrees in toto	Iowa
Spaatz agrees in toto	Jersey
Excessive diversion	Ohio
Schedules prevent	Utah
Raid	Waco
Auer	Lynn
Oranienburg	Gary
Portals	Macon
Spaatz	Salem
Security OK	Troy
Ten Bombers	Butte
Days	Erie
100 Bombers	Utica

* New York City telephone exchange refers to the above code:-

Hearth
Regent
Murray-Hill etc.

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Authority NND 736034
NND By Eke NARS, Date 6/5/24

(5)

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TOP SECRET

~~TOP SECRET~~ "TOT"

PRIORITY

From: United States Military Attache, London, England

To: War Department

Nr: 24534 16 March 1945

From Tindall to MILID sr nbr 24534 TOP SECRET, LOCO Personal to Groves from Culvert.

1. Target attacked 15th March between 1457 and 1530 hours by 612 Forts. Tonnage 1506 tons HE and 178 tons IB. Results unobserved to good. Visual bombing. Flak moderate to intense, fairly accurate.

2. Main objective of first attacking force was marshalling yard. Most bombs delayed action, so bursts not visible except few bombs of each pattern which appeared to have exploded upon impact. Analysis not yet complete, but about 5 squadrons which dropped across MY balance of patterns appear to lie in residential area east and west of MY. First group that dropped bombs started large fires in area adjoining MY and adjoining residential area. Smoke prevented complete assessment.

3. Second attacking force had 8 complete and partial concentration of general purpose bombs and IB's bursting central and southern portion city. 1 concentration of bombs just west railway sidings in business industrial district. Portion this concentration probably extended into central part of sidings and also into Smiths target. Damage should be severe this part town. Two concentrations could be plotted 500 yards southeast railway sidings. Through heavy smoke possible to see 3 partial concentrations in residential areas near a road over canal bridge about 1 mile southeast of main

CM-IN-16899 (16 Mar 45)

~~TOP SECRET~~

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NND BY Ekc NARS, Date 6/5/74

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WAR DEPARTMENT
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INCOMING CLASSIFIED MESSAGE

~~TOP SECRET "ROT"~~

PRIORITY

SECRET

From: United States Military Attache, London, England

Nr: 24534 16 March 1945

station. Two other concentrations plotted residential area 1500 yards southwest and 3100 yards south southwest main station. No bursts could be observed due to smoke. Central portion city should be severely damaged from blast and fires. Final concentration of GP and IB bombs blanketed eastern portion town of Germendorf, 3 half miles west southwest city.

End.

ACTION: Gen. Groves

CM IN 16899 (16 Mar 45) DTG 161135Z es

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Authority NARS, Date 6/5/74
NND 730059
By EKC

1
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INTERPRETATION REPORT NO. F.686.

RAILWAY FACILITIES IN GERMANY.

ORANIENBERG (4081/51 - 8348)

a. PASSENGER STATION: 3 island platforms about 325 metres in length served by 5 through tracks and one dead-ended track.

b. GOODS DEPOT: Goods shed 35m. x 20m. served by 2 open ended tracks 550m. in length and 2 single ended sidings 225m. in length.

c. LOCOMOTIVE DEPOT: small rectangular shed with 20m. turntable and served by 4 short dead-ended tracks. Small repair shop.

d. STATION SIDINGS: 8 open ended sidings varying in length from 280m. to 570m.

e. CARRIAGE SIDINGS: 5 single ended tracks approx 240m. in length.

f. CARRIAGE SHED: 4 short single ended tracks leading to storage shed approx 190m. x 20m. This is the terminus of the Berlin Electrified service.

g-h. RAIL-OVER-ROAD BRIDGE: Single track.

i. RAIL-OVER-ROAD-BRIDGE: Double track.

j. RAIL-OVER-ROAD BRIDGE: Approx 43m. wide and carrying all tracks from the South into and out of ORANIENBERG STATION.

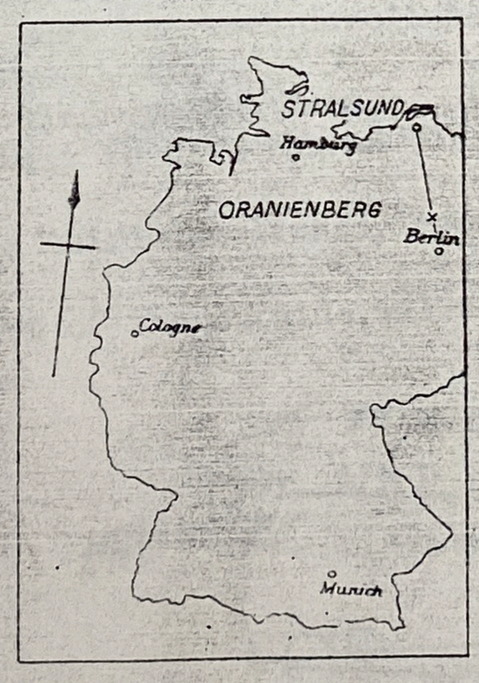
k. RAIL-OVER-ROAD BRIDGE: 4 tracks.

l. RAIL-OVER-CANAL BRIDGE: Steel girder bridge carrying two tracks.

CONFIDENTIAL. DISTRIBUTION NO.8.

A.C.I.U.

LEK/PW. 25.10.44.



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Authority NND 730039
NND BY MBG NARS, Date 4/16/76

DAMAGE ASSESSMENT OF INDIVIDUAL BUILDINGS OF

ORANIENBURG TARGET

(Inclosure #2)

As viewed thru stero-pairs, it is apparent that some construction, alteration and enlargement of the works has been accomplished since 1929, the date of the photograph listed as Inclosure #1. However, sufficient detail is available to identify the various buildings by number and to assess the damage as follows.

Building #1 & #2 - Fifty percent of the roof has been destroyed and as viewed thru the hole the inside has the appearance of being gutted. Two direct hits.

Building #3 & #12 - Walls standing but only the shell remains. Building gutted and roofless. West and south portions demolished by three direct hits and many near misses.

Building #4 - Eastern half completely gutted. Western half has been holed by one bomb causing roof damage and unestimated internal damage; also likely blast damage from near misses.

Building #5 - Western third gutted and partially demolished by direct hit. Center third demolished. Eastern third holed in roof.

Building #6 & #7 - Roof completely gone and building gutted.

Building #8 - One fourth demolished by two direct hits and rest gutted and roofless.

Building #9 - Three of the four outside walls are all that remain.

Building #10- Completely gutted.

Building #11- Little apparent damage to original structure, however, addition to east has been demolished.

Building #13- Little apparent damage. One hole in roof plus four near misses likely to have caused blast damage.

Building #14- One third demolished, remainder gutted and roofless.

Building #15- Part of the outside walls and rubble is all that remains.

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NND BY EKC NARS, Date 6/5/74

Incl #2

Additional damage within the block and on more recently constructed buildings is as follows:

a. Building occupying courtyard north of #10 completely demolished.

b. Building along street east of #13 partially demolished and gutted.

c. Building north of #13 and same size as #13 completely gutted and roofless.

d. Four buildings north and east of #13 either demolished or roofless and gutted.

e. Building north of #1 and same size as #1 & #2 combined is 2/3rds roofless and apparently gutted.

f. Additional building north of e. and size of building #1 has only the outside walls remaining.

As an overall appreciation it is stated that the factory is for all practical purposes destroyed and would have to be completely rebuilt to resume operation.

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Authority 760039
By LRC NARS, Date 6/5/74
WND

#4

Box 3 Pash
General
General
1945

Upon my return to Paris from Strasbourg George Eckman could not wait to inform me of new and, as he liked to take the occasion to point out, "unpleasant happenings" due to my "wild west approach to fighting a war."

Letter in hand, he escorted me to our "Alsos homme" at the Royal Monceau, ~~and~~ laid the letter down on the table and said ~~to me~~

"You handle this. I have enough problems trying to explain you to Bryan Conrad."

The letter was from G-2, War Department. ~~It~~ referred to a complaint received from the British ~~government~~ war ministry to our ~~State Department~~, War Department, complaining that an "American unit calling themselves "Alsos" was seriously interfering with the operations of the CIOS[x]!" The complaint stated that ~~about~~ when the operational teams of CIOS reached their targets, "Alsos" ~~teams~~ units had already been there and had conducted an ~~investigation~~ ~~in~~ This situation, understandingly, created quite some tension. While we had representation on CIOS, and that was one of George Eckman's responsibilities, and we coordinated with ~~the~~ its operational projects, in particularly situations where ~~our target contained~~ an atomic interest was included, we would list the target at the earliest opportunity, if not sooner. Naturally, we would include our other requirement in the area in order ~~not~~ to disclose our special interest.

Also, one has to keep in mind that in many instances, particularly in the British ~~Zone~~ (21st) Army group zone and in General Bradley's (12th) Army Group Area the 30 Commandos, a crack British operational group organized and developed by Ian Fleming & James Bond fame, and the U.S. 12th Army Group T Force

[x] Combined Intelligence Objectives Subcommittee

Alsos Mission General 1945

19 1970

in spite of their mission and ~~Dept~~ operational requirements, ~~were able~~ could not divest themselves of formal military procedures.

The letter required that I ~~answer~~ by indorsement investigate the complaint, correct any procedures which have caused the complaint and answer "immediately" by indorsement. ~~Ever since~~ the early days in London prior I balked at Ever since the early planning days in London in May 1940 when the Chairman of COS, Lindsay was guiding the COS program in the direction of complete British control

19 1970

Also Mission

MAY 19 1970

UNITED STATES ATOMIC ENERGY COMMISSION
IDAHO OPERATIONS OFFICE
P. O. BOX 2108
IDAHO FALLS, IDAHO 83401

May 13, 1970

Dr. James Lane
Oak Ridge National Laboratory
Oak Ridge, Tennessee

Dear Jimmy,

I am enclosing with my thanks, the material you sent on the German World War II effort in atomic energy. While I realize that these are copies, I am returning them to you since they have admirably served their purpose. My son Bill tells me they were most useful in the preparation of his paper and we both appreciate your kindness and effort.

With best personal regards.

Sincerely yours,

Enclosures:
As stated above

United States of America

WAR DEPARTMENT

ARMY SERVICE FORCES ~ CORPS OF ENGINEERS

Manhattan District

This is to Certify that

JAMES A. LANE
Clinton Laboratories

has participated in work essential to the production of the Atomic Bomb, thereby contributing to the successful conclusion of World War II. This certificate is awarded in appreciation of effective service.

6 August 1945

Henry L. Stimson
Secretary of War

Washington, D. C.

HEADQUARTERS
EUROPEAN THEATER OF OPERATIONS
UNITED STATES ARMY
ALSOS MISSION
APO 887

Copy No.__ of 5 copies

2 May 1945

SUBJECT: Gerlach Summary of Nuclear Reports

1. A new edition of "Forschungsberichte" was planned containing articles on successful pile experiments. Five articles in all were contemplated, and Gerlach wrote an introductory summary. We found this introductory summary in rough pencilled form, which gives the status of the project as of January 1945.

2. The first page of the summary contains the following brief history of the project:

"1942 Kugelschalen Versuch, Pulver, Al Behälter, D_2O
Döpel-Heisenberg (L II)
Mitte 1943 CTR, G II (Diebner-Hartwig-Berkei)
U-Metall + schweres Eis
Mitte 1943 Fünfer-Bothe
Optimale Plattendicke (kleines Experiment)
Ende 1943 Diebner-Czulius GIII
Würfel + schweres Wasser (165 liter schweres Wasser)
Ende 1944 Heisenberg B V
(In der Pause Herstellung der grossen Platten)"

3. Abbreviations in the above have the following significance:

L II	Leipzig II
CTR	Chem. technische Reichsanstalt
G II	Gottow II
G III	Gottow III
B V	Berlin Versuch

4. The text of the pencilled report is as follows:

"Die Veröffentlichung einer Serie von Grossversuchen zur Auffindung der Bedingungen für den Bau einer Energie liefernde Anordnung

[redacted]

2C

HEADQUARTERS
EUROPEAN THEATER OF OPERATIONS
UNITED STATES ARMY
ALSOS MISSION
APO 887

Copy No.__of 5 copies

2 May 1945

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2C

und der Verwendung der beim U-Zerfall freiwerdende Kernenergie gibt Veranlassung zu einer kurze Uebersicht über den Stand der Arbeiten die unter den Bevollm. f. KP. zusammengeschlossen sind.

"Das Ziel der Arbeiten ist die Ausnützung der Kernenergie für technische Zwecke. Die zur Erreichung dieses Ziels erforderlichen Arbeiten betreffen zwei Fragenkomplexe:

A. Das Aufsuchen aller künstlichen Atomumwandlungen, das Auffinden ihrer Erregung und das Aufsuchen der Bedingungen des Ablaufs der Kernreaktion, die Entwicklung von Verfahren zur Erzeugung der die Atomumwandlung erregende Strahlen und die hierzu erforderlichen Messmethode.

B. Die Ausnützung dieser Erkentnisse zum Bau eines energieliefernden Gerätes.

"Der vorliegende Bericht bringt eine Darstellung der zu B. durchgeführten Arbeiten, welche ein positives Ergebnis lieferten.

"Benützt wird der 1939 von Hahn u. Strassman gefundene Zerfall von Uran bei Beschuss mit langsamen ('thermischen') Neutronen die von einer Neutronenquelle in das Uran geschossen wurde. Bei diesem Zerfall entstehen ausser der freiwerdenden Kernenergie zusätzliche Neutronen welche zum Zerfall weitere U-Atome ausgenützt werden sodass eine sogenannte Kettenreaktion entsteht. Die grundsätzlichen Versuche über diesen Zerfallsvorgang haben ergeben, dass nur das Isotop Uran 235 welcher zu 0.7% in dem natürlichen U erhalten ist, diese Kettenreaktion liefert. Sie haben weiter ergeben, dass auch U Isotop 238 unter Lieferung von Neutronen zerfällt. Jedoch genügt die Energie dieser Neutronen nicht zur Einleitung einer Kettenreaktion. Einen Zerfall des U 235 vermögen diese Neutronen nicht zu erzeugen weil si hierzu eine zu hohe Energie haben. Erst wenn die Energie dieser schnellen Neutronen auf den gewünschten kleinen Wert gebracht werden so tragen sie zur Vermehrung der energieliefernden Spaltungsprozesse an U 235 bei. Diese Möglichkeit wurde darin gefunden dass das U in eine Substanz eingebettet wird, welche die Neutronen verlangsamt aber nicht absorbiert: in schwerem Wasser.

"Hiermit ist sowohl das Grundprinzip für den Bau eines energieliefernden Gerätes (I), als auch die Gesichtspuncte für die erforderliche Weiterentwicklung gegeben (II).

"I. Da die Neutronen sehr grosse Strecke durchlaufen, wird bei kleiner Anordnung der Verlust aus der Maschine zu gross. Für grosse Anordnung sind die erforderlichen Materialmengen besonders des schweren Wassers nicht vorhanden. Es wird deshalb zunächst experimentell Teilweise unter Benützung von Ergebnissen theoretischer Berechnung über den Lauf der Neutronen, ihrer Streuung und ihrer Absorption, die günstigste Anordnung mit den zu Verfügung stehenden Materialmengen zu ermitteln.

"Uran wird mit schwerem Wasser in einem Gefäss in verschiedenen geometrischen Anordnungen vereinigt. Aus der ersten Versuchen ergab sich das ein zu enges Gemisch - von U-Pulver und schwerem Wasser-ungünstig ist.

2 May 1945

Untersucht sind bis jetzt folgende Anordnungen mit qualitativ und quantitativ verschiedenen Geometrien, nämlich:

"1) Konzentrische Kugelschichten aus U-Pulver mit möglichst hohe Schichtdicke (?), getrennt durch Schichten aus schwerem Wasser (DSpol, Heisenberg, L II).

"2) Würfel aus gegossenem U-Metall, getrennt durch Schichten aus schwerem Eis (Diebner, Hartwig, GII) (240 kg. U).

"3) Platten aus gegossenem U-Metall, getrennt durch Schichten aus schwerem Wasser in kleiner Anordnung.

"4) Würfel aus gegossenem U-Metall, getrennt durch schweres Wasser (G III) in 2 verschiedenen grossen Anordnungen (.....kgr und.....kgr U) (sic)

"5) Platten aus gegossenem U-Metall, getrennt durch schweres Wasser (BV) in grosser Anordnung (1500 kgr U).

"Das Ergebnis dieser Versuche ist der Nachweis das in der Anordnung eine Vermehrung der Neutronen eintritt. Das Ziel der selbstständigen sich laufend (vergrossende).....ist noch nicht erreicht. Bei den letzten durchgeführten Versuchen stellt sich ein Gleichgewichtszustand in den der Neutronengehalt der Anordnung um einen gewissen Prozentsatz steigt, dann aber konstant bleibt.

"Die Zunahme ist noch nicht so gross dass die Anordnung nützbare Wärmeenergie abgibt. Es ist noch nicht ein einziger begründeten Zweifel an der Erreichung des Endziels aufgekommen. Die gesammelten Erfahrungen zeigen viel mehr die Gesichtspunkte für die Weiterentwicklung klar auf.

"II. Diese sind die Folgenden:

"a) Eine Würfelanordnung ist günstiger als eine Plattenanordnung. Der erste ergab bei nur eine Halbetonne U-Metall eine Vermehrung um 2.06, letzter beim Optimum der Plattendicke bei 1.5 Tonnen eine Vermehrung um 2.36, also in Anbetracht der sehr viel grösseren Materialmengen, relativ weniger. Ob die benützte Würfelgrösse das Optimum derstellt ist noch nicht bekannt.

"b) Aus der Ausgestaltung der Theorie in Zusammenhang mit den Experimenten lässt sich mit einer gewissen Wahrscheinlichkeit folgen dass Hohlkugeln in schwerem Wasser eine wesentlich höhere Vermehrung geben. Ebenso ist zu erwarten dass andere Würfelgrössen eine grössere Vermehrung liefern. Beide Versuche sind nicht eingeleitet.

"c) Die Mengen des erforderlichen D_2O ist wegen des Ausfalls der norwegischen Anlage auf Jahre hinaus beschränkt. Ein sicherer Weg zur Herabsetzung des Bedarfs an D_2O und zur Herabsetzung der Grösse der

Anordnung besteht darin, ein U-Metall herzustellen in welchem das wirksame Isotop 235 angereichert ist. Die Entwicklung der U-Z ist abgeschlossen. Eine technische Anlage zur Herstellung von U mit der erforderlichen Anreicherung des Isotops 235 ist in Bau. Andere Verfahren zu Erreichung des gleichen Ziels sind in Bearbeitung mit dem Ziel zu einfacheren Anlagen zu kommen. Die Herstellung der erforderlichen Chem. Verbindungen des U und Versuche zur Darstellung geeigneten Verbindungen sind im Gange.

"d) Trotz ausserordentlichen Schwierigkeiten wird versucht durch Entwicklung neuartiger Verfahren in Deutschland eine Fabrikation von D_2O zu erstellen.

"e) An anderen Verfahren, das schwere Wasser zu vermeiden, wird gearbeitet. Um nur einige hierzu gemachte Versuche zu nennen: Der Ablauf des U-Spaltungsprozesses, bei tiefen Temperaturen; der Einfluss anderer Körperformen des Urans; der Einfluss bestimmter Zusätze zum Uran, usw. Soweit das wissenschaftliche Personal ist erlaubt, werden nach ersichtlichem Plan diese Untersuchung durchgeführt, um noch günstige Bedingungen für die Energieliefende Anordnung zu fördern, wir befinden uns hier überall auf Neuland in welchem jede sorgsame durchgeführte Einzelfrage neue Wege erschliessen könne."

(Signed) "W. G."

S. A. GOUDSMIT
SCIENTIFIC CHIEF

5ex

Chronological Summary of German Progress in Nuclear Energy

Dec. 1938 Discovery of fission by O. Hahn

1939 Formation of Uranium Society

1939 Bothe + Heisenberg visit the U.S.

July 1940 a) Sizes of D_2O, H_2O and C piles calculated by Bothe + Heisenberg.

b) Experimented with 2 tons of commercial $Na_2U_2O_7 \cdot 6H_2O$ estimated 2.9 fission neutrons / thermal neutron

c) Studied isotope separation methods - thermal diffusion etc.

d) Estimates of required size of D_2O - U pile two cum. i.e. 500-600 l D_2O; 1.6-2.2 tons U

1941 a) Measurements (Bothe + Jensen) of the diffusion length of electrographite ($\rho = 1.7$) gave 36 cm compared to estimated 61 cm. Indicated that a nat U-graphite pile not possible

b) Tried

~~Haag~~, B-6 planned for Summer 1943

Höcker

German Reactor Experiments

Berlin - Dahlem - Kw I Physics (Heisenberg)

Date	No	Core	~~Reflector~~	Reflector	Report
	B-1	5200 kg U_3O_8 + 640 kg Par.	H_2O	}	G-93
	B-2	6000 kg U_3O_8 + 210 kg Par	"		
	B-3	557 kg U + 44 kg Par	"	}	G126, G127
	B-4	750 " "	"		G-162
Nov 1942	B-5	864 " "	"		
	B-6	1570 kg U + 1500 kg D_2O	H_2O		?
Jan 1945	B-7	1500 kg U + 1570 kg D_2O	C		G-300

Leipzig Expts

	L-1	U_3O_8	H_2O			G-74
	L-2	U_3O_8	D_2O			G-75
July 1942	L-3	750 kg U	powder $\rho=10$	D_2O 140 kg	37.5cm	G-136 G-311
Nov-1943	~~L-4~~	232 kg U	+ 18 kg D_2O	paraffin	51cm	G-212
Gottow Dec 1943	L-5	564 kg U ?	+ 592 kg D_2O ?	paraffin	51cm	G-210

Gottow -

	21 tons U_3O_8 + 4.4 tons paraffin	} G-241 G-125
1943	various shapes of U_3O_8 + paraffin	G-240

1940 – calculation of xsecs of D_2O, H_2O and C piles
by Bethe, Heisenberg etc.

1940 Exp. with 2 tons $Na_2U_2O_7 \cdot 6H_2O$ (commercial grade)
Tried expt with solid CO_2

1941 – Measured diffusion length in electrographite
@ 36 cm indicating slightly bowed
U-235 required. This compared to calc. value
of 61 cm. Could find no impurities.

1941 Expt with 1.5 m diam × 1.6 m high U_3O_8 + H_2O
indicated H_2O not suitable

1941 – prod. D_2O 130 l/month.

1941 – Expt with 6 tons U_3O_8 with H_2O and paraffin
unsuccessful. $\eta = 1.3$ resonance capture = 1.96

1942 U metal compared with U oxide + paraffin
551–750 by U metal

1942 Demonstrated that U metal and U oxide
in D_2O could be made critical

① Gaitlow Expts - 25 tons U_3O_8 + 4.4 tons paraffin
Dec - 1942 3.8" cubes -
2½ m diam x 2.3 m high

② G-I 1943 (1) 232 kg U + 210 kg D_2O
G-II (2) 564 kg U + 592 kg D_2O

G-210

[208 cm diameter pile had a 102 cm hollow sphere with D_2O inside.]

240 curies of U

Date	Berlin Experiments			Reflector
	B-1	5200 U_3O_8	640 kg paraffin	
1941	2	6000 kg U_3O_8	210 kg paraffin	
	3	551 kg U	44 kg paraffin	1 ton
	4	740 kg U	37 kg paraffin	1 ton
Nov 30 1942	5	864 kg U	12 kg paraffin	1 ton
Mar 44 – Sept. 44	6	1500 kg U-3000	1500 kg D_2O	1 ton
Jan 1945	7	1500 kg U	1500 kg D_2O	Graphite

Leipzig Expts

L 1941	L-1	U_3O_8 + H_2O	1.5 m × 1.6 m	
	L-2	U_3O_8 + D_2O	37.5 radius	
Oct -1942	L-3	U + D_2O	37.5 radius	
	L-4	U + D_2O	51 radius	
	L-5	U + D_2O	71 radius	

Heidelberg

~~1947~~

1941 ~~Sta~~ informed by Norsk Hydro that production of 1.5 tons/yr could be achieved by expansion of plant. Goal was 4 tons/yr.

Nov 6 1942 - chief engineer disappeared
followed by director

Feb 28 1943 high concentration ~~of~~ equipment damaged by saboteurs
production was 150 kg/month

Aug 1943 production level raised to 3 tons/yr.

Nov 1943 attacked by 130 American bombers. -
production in Norway discontinued

Operated pilot plant in Germany, however. construction time for full scale plant (1½-5 tons/yr) estimated at 1½ to 2 yrs.

~~SECRET~~

Lide

Gen Rec

AMERICAN EMBASSY
OFFICE OF THE MILITARY ATTACHE
1, GROSVENOR SQUARE, W. 1,
LONDON, ENGLAND

19 September 1945

Subject: Uranium stocks in Germany.

To: Major Francis J. Smith, Room 5004, New War Dept. Bldg., Washington, D. C.

1. Transmitted herewith is a report from S. A. Goudsmit, Scientific Chief, Alsos Mission, which covers an interrogation of Dr. IHWE, of the Auergesellschaft, as to locations and amounts of uranium material stored in Germany and also which amounts were reportedly moved to Russia.

2. This information has been checked against Gattiker's report, "Present Status And Location Of Basic Materials Known to Have Been Acquired By Germany During The War", a copy of which has been forwarded to your office. The comparison of these reports reveals that they are alike with the exception that Gattiker's report does not mention an amount of material at Landsberg, of which we had no information on.

3. An opportunity has not presented itself for this office to investigate the material which is reported to be at Büchler near Brunswick. However, such an investigation will be conducted in the near future and should the information be accurate, arrangements will be made to have the amount recovered there moved to England.

For the Military Attache:

H. K. CALVERT,
Lt. Col., F.A.
Assistant to the Military Attache.

Inclosure - 1

~~SECRET~~

DECLASSIFIED
E.O. 11652, Sec. 3(E) and 5(D) or (E)
Authority NND 75011 2
By CD/S.C NARS, Date 18 FEB 1976

Boris Pash
General
1945

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THE NATIONAL ARCHIVES
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Australia
Foreign Intelligence Unit

Foreign Programs
(Germany)

How Germany Lost The Race . . . . . S. A. Goudsmit

I was connected with the War Department mission which was sent overseas to investigate the progress made by the Germans on the atomic bomb. My conclusions are based on having had access to all German material and on having contacted all key men on this project in Germany.

The German line of thought was as follows:

1. An energy-producing uranium engine is more likely to succeed than a bomb. In fact, they had entirely abandoned the hope of making a bomb during this war.
2. An atomic bomb is an uranium engine which gets out of control; therefore, the road towards a bomb leads via the construction of the uranium engine.
3. To make a bomb of pure plutonium never entered their minds, or at least was not considered feasible and not taken seriously. The idea of using a pile to produce plutonium and to make a bomb out of that material came to them only slowly, after the detailed radio descriptions of our bomb in August 1945.
4. An uranium engine is just as important as a bomb because it will make Germany economically self-supporting by the enormous power it may produce.

As a result they concentrated their efforts on the production of atomic energy, and all the work done was nothing else but trying to build what is called over here a pile, an uranium machine.

The Germans worked hard on the pile; at the end of the war they had merely come to the conclusion that a heavy water pile was possible. They never did construct a self-sustaining pile. They had not produced a chain reaction. The war ended too soon, and they probably would not have had enough heavy water for a working pile. They were also not aware, of course, of numerous new difficulties they would have encountered if they really had progressed with their attempt at building a pile.

The remarkable thing about the Germans is that throughout the war they believed that they were ahead of our effort along those lines. Not until the news broke that the atomic bomb had been dropped did they realize that they were not ahead, but that they were behind.

REASONS FOR GERMAN FAILURE

The reason for the lack of progress in Germany, as I see it, can be put down in a number of points.

The German scientists seem to have lacked the vision. They did not believe in success from the very beginning. They were convinced that the project was important; but they did not believe that it could be done within a reasonable time.

Another reason why the Germans did not make any real progress was that the key men in administrative positions were utterly incompetent. For instance, Army Ordnance had as its chief adviser on military matters a second-rate physicist named Schumann, and the scientists he had working with him were definitely inferior compared with the scientists who were available in Germany for such a project. Several other groups worked independently under different sponsorship—including the Air Ministry and the Ministry of Post and Telegraph.

It is clearly understandable that in such a way they could not go very far. It was only later, after the war went badly, that the thing was better coordinated and that one man was put at the head of the whole organization, a competent scientist. That was around 1943.

They were seriously handicapped by the lack of prestige which science has in Germany. When the war broke out, all German scientists were drafted. One of the top scientists was a corporal for a while, and stated that his Army experience was like the usual mountaineering, only made difficult by the presence of sergeants.

Pretty soon the key scientists were taken out of the Army and put back in the laboratories; but the bulk of the German scientists remained in the Army for several years, 2 to 3 years. Several were killed in action as soldiers.

Only when the war went bad, especially after the U-boat war went bad, were scientists released from the armed forces and put back on war work, which on the whole was not very successful, except for the Air Force.

Prior to the war, one of the key German scientists went around the country lecturing for various officials of the Air Forces, to point out that Germany was rapidly declining in the fundamental sciences.

He attributed it primarily to lack of support for science, to some extent to the loss of scientists because of persecution, and to a greater extent to the replacement of those scientists by incompetent party members instead of good scientists.

HISTORY OF GERMAN ATOM BOMB RESEARCH

Early in 1939, as was done in England, France and America, several German physicists called to the attention of the military and of other authorities the possibility of making a superexplosive as a result of the discovery of uranium fission. A group of physicists met and formed the Uranium Society (Uran Verein). This was originally an informal group, exchanging information among each other, but keeping such information from outsiders.

German nuclear physicists proceeded with their research independently. Army Ordnance had a scientific group under a second-rate physicist, Schumann, which started work on this problem.

He went to France and tried to get the French development out of the hands of the French, and to move the French cyclotron. Later, he decided not to move it but to make it work, and sent some Germans down to put it in order and operate it.

He had a small project going on in one of the Army proving grounds near Berlin.

The best-qualified groups were the Kaiser-Wilhelm Institute for Physics in Berlin, under Heisenberg, and the physics section of the KWI for Medical Research in Heidelberg, under Bothe. Bothe, as well as Heisenberg, made a survey trip through the United States of America in the Summer of 1939.

At the beginning of the war, each academic research group had to find its own sponsor. The German Air Forces had the best and most liberal set-up for research, and some nuclear physicists were fortunate enough to get support from them. A private scientist, Baron von Ardenne, a clever technician and businessman, got the Minister of Post and Telegraph, Ohnesorge, interested in his research. Ohnesorg was near to Hitler and kept the Fuehrer informed about the importance of the project. For awhile, von Ardenne was considered by the German authorities to be the expert on the uranium problem, much to the dismay of the really competent scientists.

The various groups worked in competition with each other. The sabotage and bombing of the Norwegian heavy water plant had cut their supply so that it was barely enough for one group to make important experiments. As a result, disagreements arose concerning its use.

The bulk of German scientific research was under the Ministry of Education (Minister Rust). It was governed by a Research Council under an incompetent administrator and second-rate chemist named Rudolph Mentzel, a brigadier in Himmler's SS.

Early in 1942 the members of the Uranium Society thought it necessary to call the project to the attention of the highest members of Government and military organizations. A special secret meeting was called by Minister Rust and General Leeb, Chief of Army Ordnance, to which all top-ranking officials were invited. However, most of them declined or sent

(Continued on next page)

The German Atomic Energy Project . . . . . Continued

(Continued from page 4)

minor representatives. It is doubtful whether this meeting had any success.

A few months later, the Research Council was taken out of the Ministry of Education and, by Hitler's decree, placed under Goering. It was hoped that this change would bring research on other subjects up to the same high level as that of the air forces, but matters did not turn out that way. The incompetent Professor Mentzel remained the active head of the Research Council.

Professor Esau was put in charge of uranium research. Later, some time in 1943, he was replaced by the physicist Walther Gerlach, of the University of Munich, a really first-class experimental scientist and organizer. At the same time, Army Ordnance seems to have gotten tired of this apparently hopeless research and turned the facilities and men over to the Research Council. Upon Gerlach's shoulders fell the difficult task of reconciling the two principal groups working on uranium—the Kaiser-Wilhelm Institutes and the former Ordnance Group.

In the meantime, Allied bombing had forced the scientists to evacuate their well-equipped laboratories in the cities and to seek shelter in rather primitive quarters in various small villages spread all over Germany.

In studying the Research Reports, one is, first of all, impressed with the slowness of the progress. At the beginning of 1945, most of the research was still in practically the same state as it had been in 1943. Isotope separation had been tried only on a very small scale, by means of a centrifuge. It had been found that the Clusius method did not work. Research on several other methods had been dragging on for a few years without much progress.

Some of the key scientists worked only part time on this important research and the rest of the time did routine teaching or administrative work. The lack of proper large-scale facilities necessary for this kind of work was, of course, another reason for the lack of success.

Attempts were made to have German chemical industry produce heavy water because the Norwegian plant had been destroyed. However, not much progress was made with this plan either. Uranium metal was produced in quantities sufficient for small-scale experiments, and the stock of heavy water seemed to be just enough for that.

The effort was small, though it had the highest priority among all scientific research projects in Germany. The total expenditure was about 15,000,000 marks, which is perhaps equivalent to some $10,000,000. The appropriation for 1944-45 was 3¼ million marks with a subsequent supplement of 1,000,000.

It is estimated that approximately 100 scientists were active on this project. They were divided into several rather small groups working on different phases of the problem, and were spread all over Germany.

SECRECY IN THE GERMAN PROJECT

Almost nothing was known here about the German project before the invasion of continental Europe, in spite of the fact that the German security provisions were not of a very high standard. Letterheads and envelopes were used which clearly indicated the prominence given to nuclear physics, reading "The Marshal of the German Reich, President of the State Research Council, Plenipotentiary for Nuclear Physics," or "The Plenipotentiary of the Reichsmarshal for Nuclear Physics," which gave Gerlach the nickname of "Reichsmarshal for Nuclear Physics." In draft deferment requests, the reason was clearly stated as "Working on Energy Production from Uranium." There were some weak protests against this lack of security, but to no avail. However, this stationery was never used for correspondence with neutral countries. The locations to which the laboratories had been evacuated were kept very secret.

German scientists knew practically nothing about Allied developments, aside from what they picked up in the summer of 1939. They received some utterly wrong and useless information from the German intelligence, information obtained from travelers or other unreliable sources. There was a rumor in 1943 that the German intelligence had information about atomic bomb-work being performed in the United States. This apparently was not taken seriously, as further details were lacking.

PROJECT RESULTS AND POLITICAL POLICY

Toward the end of the war, the German experiments had indicated that it was possible to obtain an increase in the number of neutrons, but no self-sustaining neutron source had been constructed as yet. The German scientists considered this achievement of great importance. They were convinced that they were far ahead of the Allies. They believed that this success might play an important role in the settlement of the peace terms, for they understood correctly the immense implications of the uranium-energy project. Even if the peace terms might not be influenced by them, they hoped that this achievement would at least insure for German science a leading role in the world and save Germany in that way. These thoughts were, indeed, the driving force behind the German scientific efforts. Gerlach was greatly excited when he learned about the favorable result of the preliminary experiment. He immediately informed Bormann, the head of the Nazi Party, reassuring him of German supremacy in this field. Gerlach was quite upset when, shortly afterward, the S.S. spread rumors that the Germans were soon going to use a uranium bomb. The scientists knew that they were still far away from that goal.

Himmler's S.S. had begun to take an active interest in research and especially in the uranium project. This organization had threatened to evacuate key scientists and their equipment to the Bavarian redoubt where they would be forced to complete the work under pressure. To the relief of the frightened German scientists, this plan failed, probably because of the rapidity of the German collapse. Only one group was actually kidnaped by the S.S. and let loose in Bavaria.

CONTROL PROBLEM

In my opinion, a survey of the German work on uranium energy leads to certain recommendations for eventual control of uranium research.

It has become evident that such supervision can only be had with the help of qualified scientists. The present military methods of intelligence or of occupation are totally inadequate for the control of scientific research. These merely lead to such utterly useless extremes as the destruction of the cyclotrons in Japan.

As soon as our mission got in touch with the first physicists, the first physics laboratory, the first correspondence and documents on physics which were available on the Continent, we obtained the complete story. If there could be free interchange of ideas among the scientists, if they could travel freely, if they were allowed to visit each other's laboratories, if that were possible, then as long as scientists are working or have to be used in work on an atomic bomb or anything of that nature, I don't believe that it can be kept secret.

The scientific cooperation which exists among scientists all over the world overcomes the barriers of war and differences of political opinion. I feel certain that, if all countries grant complete scientific freedom to their research workers—the scientists' free choice of research problems and freedom of publication—no dangerous activity will, or can, be kept secret as long as scientists are involved.

An Appeal To Reason . . . . . E. U. Condon

The last war's destruction far exceeds that of any catastrophe yet known. The war ended with the application of a new weapon that is a thousand times more frightful than the weapons which produced most of the war's frightfulness. And already we have responsible statements from scientists who made this development, that bombs a thousand times more powerful than those already used are capable of being made in the near future. There are men living who know how to make a single bomb whose destructiveness is equal to a million ton-ton blockbusters. One such bomb, dropped on Washington or any other major city, may be expected to wipe out its population, to destroy its buildings utterly, and to render the site uninhabitable due to poisoning by radio-active materials.

THE CHOICE OF ATTITUDES

In the face of this situation, people react essentially in one of two ways. The first kind say: "It's just another weapon. Mankind learned to adapt itself to the long bow, and the cross bow, and the B29. We have always had wars." An extreme expression of this kind of pessimism is found in a speech by Prof. Leslie A. White of the anthropology department of the University of Michigan. He says, "As for the extermination of the human race as a consequence of hurling atomic thunderbolts, this too may be admitted as a possibility, and all we can say is that if it is to come it will come. Extravagant expressions of horror will not alter the course of events."

In our language, "extravagant" connotes exaggerately inaccurate and thus detracts from the serious warnings which responsible physicists are trying to give us. Now I would agree that expressions of horror alone will not alter the course of events. But I insist that if we look at what civilization has suffered in World War II, even before the atom bomb, and couple it with the picture of a war with plentiful use of "old-fashioned" atom bombs, and further with the picture of a war with both sides equipped with the really potent 1950 models — then, I say, no expression of horror of which our hearts are capable can be exaggerated or extravagant. I say we need not and should not fatalistically await death, while reading papers to an academic society in Philadelphia.

The second kind of people react differently. They say, this is the end of the road. Mankind has brought down suffering and death on its head, spiritual values have been destroyed, hatreds have been nourished and developed into great social cancers by war, and the war fears, and the war suspicions and divisions among men. This has been going on since the beginning of time and will surely destroy us all if we let it continue. We say simply that this must stop. We read the lesson of history to be that men can go forward together, and that men can progress to new freedoms, and new areas of social adjustment. The magnitude of the present crisis is such that we must soberly think of the choice as being between drifting into a war which will lead to the destruction of civilization, leaving a remnant of stunned, confused, poverty-stricken, frightened men and women amid the ruins,—or a wholesome healthy development of a united mankind, using its intelligence cooperatively for the good of all.

I beg of you, cast in your lot with the persons of the second kind—the people who believe there is a possibility that men throughout the world can live in freedom and justice, in love and good-will, that they can devote their full energies to constructive application of the rational thinking we call science to the arts of peace. In asking you to join with us, I make no promise of certain security. I only promise hope, and tell you that the other way leads to certain doom. If we try to establish the brotherhood of man on earth we may fail, but if we do not even try we shall surely fail, and what an unbearable load of guilt our consciences will then have to carry.

We must assert ourselves in every kind of agency of world cooperation toward positive wholesome working together for human welfare. This means specifically support to UNO, UNRA, and UNESCO and whatever other such activities lie ahead.

We must particularly seek to bring about closer working relationships with the Russians. Russia and the United States are today the most powerful nations in the world so unless we can get along together, there is no hope for peace.

SCIENTIFIC AND MILITARY PROCEDURES

We must regain for all scientists that freedom from military domination which is so necessary if science is to be used for peaceful ends. With militarism not wholly exterminated in the world, we must have scientists contributing to the development of our tools of war, since, God forbid, we may, if all else fails, have to use them. But the scientific life of the country must not be subordinated to, nor derive its chief support from, the military.

This is essential in the interests of the military themselves. Because the scientific spirit is so completely opposite to the military spirit, science simply will not go forward under military domination. Nowadays men must work together in large organizations. It is characteristic of the military organization that operations are planned and directed from the top, with the details executed by men below, by persons who unquestioningly and obediently respond to the orders given them from above. The flow of original thinking is from the top to the bottom. I conceive just the opposite to be true in a properly administered scientific organization. The function of a scientific director is to set up working conditions where the lowliest novitiate is put in touch with all the problems in his field and encouraged to worry about them and to come out creatively with new ideas and results. He is the sole judge of what knowledge he needs in order to work effectively on his problem. The flow of original thinking in this case is mainly from the bottom to the top.

Every worker must have access to the whole story because no one can foresee which scientist will have the truly creative idea. And each scientist must be free to discuss his ideas, while in the formative state, with his colleagues anywhere, for it is from the working together of many minds that new science comes.

In contrasting the military and scientific, I do not wish to imply that one is wholly wrong and the other wholly right. Just as I do not recommend the military procedure for the conduct of scientific research, neither would I want our safety to depend on the outcome of a battle in which the scientific method of free discussion, independent thinking and mutual criticism was followed by all the captains and lieutenants on the battlefield. Military operations and scientific research are two quite different kinds of human activity and neither should be subordinated to the other.

THE DOMINATION OF SCIENCE BY THE MILITARY

Of course my reason for stressing this point is that right now we are confronted in America with a situation in which scientists are being held very strictly under military domination, to the severe detriment of our scientific development and the development of wholesome international relations.

What is going on? Prominent scientists are denied the privilege of traveling abroad. Physicists are not allowed to discuss certain areas of their science with each other, even as between individuals working on closely related phases of the same subject. They can only communicate through official channels, involving censorship of their communications by army officers without knowledge and so without competence. Information essential to understanding is being denied to students

(Continued on page 7)

2-5 Boris Pash [redacted] Alsos Mission

General

Article by V. Gilonsen, relating to U.S. military intelligence, including Alsos mission, during WW II, 1962